THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

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Agricultural Machinery.

NOTHING is more worthy the attention of agriculturists than the improvement of the implements and machinery of the farm. A tool that is often used should be of the very best construction, even at an additional cost. It is quite a consideration to a laborer who does fifty days' work at hoeing in a season, if by the use of a perfect tool, costing fifty cents more, he can do this work as easily in forty days, and save ten days of labor. The farmer who throws aside his four-dollar plow, and by purchasing one at eight dollars is enabled to save for his team in five years, one-fourth of a hundred days' plowing each, or one hundred and twenty-five days in all, makes an investment with his extra four dollars far exceeding that in any bank, railway, or gold-digging company.

If the thing were possible, a most interesting and novel exhibition might be made at a State Fair,—more convincing than anything else could be, of the great progress of modern agriculture,—by presenting a collection of all the implements, such as were used in this state in the year 1800, alongside the numerous and finished machines of 1853. All the premium cast plows, with their gracefully curved and polished moldboards—the subsoilers, the deep tillers, and cast-steel plated implements, would be represented by the old square-faced "bull plow;" the threshing machines, in all their modifications, by the swing-flail; the most improved fanning mills and separators, by the wheat-riddle; wheat drills, gang plows, and wheel cultivators, by a shouldered bag of grain, and a forked harrow; revolving horse rakes, mowing and reaping machines, by the hand rake, scythe and sickle, &c. The implements of 1800 would not load a horse-cart; those of 1853, with their various forms, would freight a steamboat or long train of rail-cars. The State Agricultural Museum should, if possible, preserve specimens of these relics of fifty years ago.

And yet, in many particulars, the improvement of farm implements is yet in its infancy. The most finished cast-steel plow of the present day, perfect as it may seem, consumes five-sixths of the moving force to overcome friction and cohesion. For, in ordinary work, a horse will do the same as lifting 700 lbs. seven inches high per second; while a good two-horse plow, in turning the soil, lifts only about 200 lbs. of the earth seven inches high on an average, per second. Here is an opportunity for inventors to exercise their ingenuity, in overcoming this 500 per cent. of cohesion and friction.

The English agriculturists have been lately much occupied in endeavoring to devise some other way of loosening and pulverizing the soil, besides plowing. They have not yet been very successful, although some of their newly introduced machines, in connection with the plow, have accomplished wonders. The two most efficient of these are perhaps Croskill's Clod-crusher and the Norwegian Harrow, both of which we described some months ago, and which might be introduced into our clayey districts with great probable advantage. A recent number of the English Agricultural Gazette described a new *digging machine*, which has lately been tried with some success. It is rather a forking than a digging machine, acting by prongs, not by cutting flat surfaces and edges. Drawn by six horses, it pulverized the soil of a field, consisting of a friable loam plowed the previous autumn, so that in walking over it the feet sank three inches, and a stick could be thrust down eight or nine inches. Every circle of its twelve teeth, revolved on a separate rowel, of which there were seven, six inches apart, strung upon one axle. The rowels consisted of heavy cylindric blocks of iron, one foot in diameter, and four or five inches wide, from whose surfaces project teeth ten or twelve inches long, curved in such a manner as to enter the earth perpendicularly as the machine revolves. Between the blocks are heavy washers, which keep them asunder, and facilitate the motion and cleansing of the whole. Such a machine as this may in some cases pulverize the earth more perfectly than the plow and harrow, but otherwise appears to possess no advantage on the score of economy or expedition; for the six horses required to draw it, pulverize a strip only three and a half feet wide, and get over only about four acres a day; an amount easily plowed and harrowed by the teams separately. Still, however, it is not altogether impossible that such a machine may be the germ of something fitted to a single two-horse team, and working the earth more economically or more efficiently than the common plow. In this respect an important step may have been taken.

More recently, we observe a notice of a new subsoil plow, lately invented in the north of England, which

certainly proposes to accomplish wonders. In the first place, it "skims the surface;" secondly, trenches the land; thirdly, subsoils the ground to any required depth; fourthly, it will perform either of these operations combined or separately; fifthly, it requires no skill in holding, and no "balks" can ever be made; sixthly, it buries all vegetable matter and weeds; seventhly, it may be used on land wet or dry; and eighthly, it trenches land at one quarter of the ordinary expense by hand. This plow appears not to have been tried as yet, although commended by an English agricultural journal of high character; but we confess so many wonderful qualities partake largely of the marvellous, and remind us of the extraordinary quack medicine, which not only cured the different diseases, but possessed many other very useful properties, such as restoring a rent boot, doubling the milk of cows, causing hens to lay with great rapidity, preventing decay in fence posts, preventing horses from balking, rendering railroads proof against collisions, making steamboat boilers safe from explosion, besides increasing the speed of the boat, &c.

Another attempt, not so successful as this claims to be, was made some years ago, at the Bristol exhibition of the English Agricultural Society, of a digging machine, constructed simply of a wooden roller set spirally with spoon-shaped spikes, so as to dig up the land when drawn over it. Unfortunately, the first trial was made on the fair ground, and instead of digging, it gathered soil among the teeth as it proceeded, till the whole became an immense cylindrical mass of earth, in which the teeth were buried and hidden. That, of course, ended the history of this digger.

Thousands of very ingenious men have labored for years in improving the old-fashioned soil-inverter, the plow; and possibly nothing better than this implement will ever be contrived; but ingenuity in other diections is certainly worthy of encouragement. At the present time, a trenching machine is greatly needed, that shall not require six or eight horses, as the largest subsoil and trench plows now do, but where one or two horses may be set to work and turn up the subsoil and throw under the surface, with all the perfection of finish accomplished by hand labor, and with one quarter of the expense.

Second Growth of Timber.

Experience has proved the most profitable way of managing forests to be the complete cutting off of all trees, so far as the clearing goes, and allowing the new growth to come up evenly and all together. But it has become an important question when to cut off this second growth, so as to afford the most rapid returns. The Salisbury Iron Company has several thousand acres of land, reserved exclusively for supplying their own charcoal. From the experience of sixty years, they have ascertained the most profitable period for cutting to be once in about sixteen years. It has been found that this yielded equal to an annual interest on $16 to $20 per acre, in a rough and not rich soil, remote from a wood or timber market.

How to have Plenty of Water.

Pure, clear water, forming, as it does, at the same moment, both the emblem and embodiment of refreshment and comfort, is looked upon as a vital element of satisfactory existence, by all who hate dirt, parched lips, dusty lungs, stratified deposits on the skin, and parti-colored linen. It also forms a most agreable class of pictures for the eye, in the form of placid sheets, bubbling brooks, sprinkling jets, and flashing fountains; and through the ear, it gives us the music of cascades, the thunder of cataracts, and the grave roar of ocean surges.

It is no wonder that all are ready to labor for and welcome so agreeable a companion. The large cities have brought it many miles in hewn masonry, at a cost of millions, that they may syringe their streets, feed their baths, and keep a ready antidote for the incipient conflagration. The country resident longs for the termination of the parching drouth, when drenching rains shall fill his cisterns, replenish his failing well, and set the brooks in motion. Many are looking with envy at some rare and "lucky" neighbor, who happens to have an unfailing spring; and others, as we have often witnessed, placing the water hogshead on the ox-sled, proceed to drag their needed supply from a distance of one to three miles, as the case may be, and as they can get it from the pond, creek, or some better-supplied risident. We have positively seen a wealthy farmer drawing rain water a mile, after having allowed five times the amount he ever would have needed to run to waste immediately before his eyes; and we venture to assert that not one farmer in a hundred who has suffered from a want of water during the present year's severe drouth, has not committed a similar waste, though perhaps sometimes less in degree.

The great mass of country residents seem to have no more conception of the enormous floods of clear, pure rain water, that annually pour off of the roofs of their dwellings, wood-houses, barns, sheds, and other outbuildings, than if they had never heard of such a huge watering-pot as the clouds in the sky. If all the rain which falls in the northern states within a year, should remain upon the surface of the earth without sinking into it or running off, it would form an average depth of water of about three feet. In the southern states, it would be more; within the American tropics, it would amount to about ten feet; and near Bombay, in Asia, to twenty-five feet.

Every inch of rain that falls on a roof, yields two barrels for each space ten feet square; and seventy-two barrels are yielded by the annual rain in this climate, on a similar surface. A barn thirty by forty feet, yields annually 864 barrels—that is, enough *for more than two barrels a day*, for every day in the year. Many of our medium landholders have, however, at least five times that amount of roofing on their farmeries and dwellings, yielding annually more than four thousand barrels of rain water, or about *twelve barrels or one hundred and fifty ordinary pailfuls, daily.* A very small portion of this great quantity is caught in the

puny and contemptible cisterns and tubs placed to catch it; but full-sized, capacious reservoirs, fit to hold this downward deluge, we know not where to find, even in a single instance!

It is true, that where a constant draught is made on a cistern, it need not hold the full year's supply—even one-sixth part, will, in general, answer, as the variations in the wet and dry seasons do not often amount to more than the rain of two months. But allowing all this, where shall we find a cistern for a thirty-by-forty-feet barn that holds this sixth, or 170 barrels? Or one proportionately large, for a broader roof?

Now what would the large supply of water from sufficient cisterns enable the farmer to do? or rather, what might he *not* do with it?

1. In the first place, all the cattle on a farm well furnished with buildings, might obtain all the water needed for their daily use.

2. Or, if instead, the usual proportion were supplied them by streams and wells, a large upper cistern would furnish all the conveniences of showering, washing, and sweeping off feculent matter, which are derived in cities from pipes and hydrants.

3. Or, if large cisterns were placed in the upper part of the farm-buildings (where the space they would occupy would be of little comparative value,) they would supply a fountain one-fourth of an inch in diameter, spouting fifteen feet high, for two hours every summer afternoon—the cisterns being unoccupied in winter.

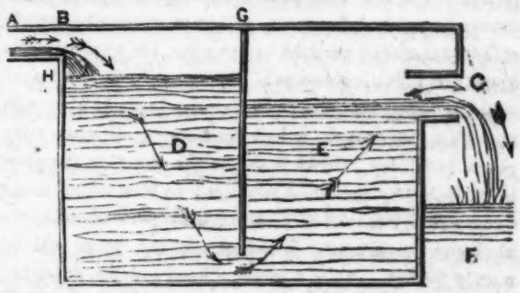
4. In addition to supplying the fountain, they would keep up the water in a pond at the foot of the fountain, thirty feet in diameter, (or with equal surface,) and allow eight barrels to flow off daily for watering cattle or for other purposes, during the hottest evaporating days of summer.

Tanks for Liquid Manure.

Intelligent farmers are becoming well acquainted with the fact that under the ordinary management of manures, or rather want of management, a loss of fifty per cent or more occurs by the waste of the liquid portions, and by the washing of rains. As a consequence, much ingenuity has been exercised, and much labor performed, to save and apply it. Tanks, or large water-tight underground cisterns, have been built, into which all the drainage of manure is directed. When full, some have pumped the contents back on their manure or compost heaps; others have pumped them into water casks, and conveyed them directly to the growing crops. Others again, have filled their tanks with dried peat, charcoal, &c., and when these are saturated the whole is thrown out and used as manure, and fresh portions again deposited. A more common, but less perfect, although easier way, is to keep the stables well littered with straw, and trust to its absorption of the liquids.

These all have their disadvantages. Carting out the liquid manure in water-carts, is altogether too expensive for ordinary farm crops—for although pumping and throwing from pipes is easier than shovelling the solid material, and the finely divided fertilizer penetrates the soil to great advantage, yet the many tons of water required to be drawn out in order to get one ton of solid material, overbalances all the advantages. Pumping the contents back on the compost heap is far better, especially if there is a large amount of turf and loam to absorb the rich parts. Filling the tank with absorbents saves all, but wastes labor, as these solid materials soon become loaded and heavy with water, for the small portion which they hold in solution, and all this weight of water must be shovelled out every time the cistern is filled, which is absolutely out of the question for common practice.

We observe by the English papers that a decided improvement has been made on all these plans, by Lady Frankland Russell, near Thirsk. It has been applied on a large scale to drains or sewers, and possesses the peculiar advantage of retaining all the enriching materials, and suffering the water in a pure and transparent form to escape; and may, of course, be as well applied to the dralnage of the barn-yard. The following is a section of the arrangement.



The arrows show the course of the liquid current; the first tank, D, is filled with clay, turf, or loam, a large portion of clay being desirable; and the second tank, E, with charcoal dust. The liquid finds its way through these substances by the force of gravity, and by capillary attraction. Two sets of these tanks are placed at the foot of each sewer or drain, and as soon as the water ceases to flow pure from the first, it is immediditely turned into the second, while the contents of the first are removed. The great advantage of this plan is, that the valuable parts of the liquid are absorbed, and many times concentrated, instead of being dissipated through a vast bulk of water, while the operation of pumping up all this water, as in the mode before mentioned, is entirely avoided.

Should such a plan as this be adopted to any extent on a farm, it would be an economical arrangement, and save some cartage, to carry the drainage as near as practicable to the place where most of the manure would be used, before passing into the tanks; and also to place them, if possible, on a hill-side, where the soil or turf could be easily dumped into them from a cart, and taken out into the cart below, when saturated. If charcoal cannot be had, both tanks may be filled with earth. Dried peat will absorb much liquid, but its absorption is *mechanical*, not *chemical* like clay, and hence when saturated, the water will not flow off pure.

☞ In Sussex county, Delaware, a young cow, one year old, is giving milk of an excellent quality.

Green Manuring.

I have a piece of land that needs enriching, but this I cannot do for it, except at too great an expense—that is, by drawing manure from Buffalo, nine miles by pland road. The land referred to was seeded with grass last spring, and it looks well; and there will from present appearances, be a fair crop of timothy and clover next season. I propose about the 20th of June next, to mow the grass and spread it over the ground, and leave it to decay, and leave what comes up afterward the same season to rot on the land. Will this be a good way to bring up the land? C. S. *East Hamburgh, Erie co., N. Y., Aug.* 8, 1853.

We would not by any means recommend the exposure of the crop of grass the whole season to the elements, although we have no doubt that much enriching material would thus be afforded, when plowed under in autumn. Plowing under at once would better promote decay and decomposition, and prevent the dissipation of a valuable portion of the crop of grass. Several successive crops of green manure are always best for poor land, but it is generally most convenient to turn in but one in a season, preceding some farm crop. If our correspondent, however, wishes to obtain the benefit of two successive growths in one year, we would recommend the following course: In the early part of next summer, when his clover and timothy begin to approach maturity, (for much is lost by burying it when very green and juicy,) throw it flat in the direction the plow is to move, by means of a roller; or if a roller is not to be had, by means of a common harrow—then let the plow run in the same direction, and the grass will be mostly buried. A short piece of heavy chain, dragging from the upper part of the coulter, in the furrow, and the other end fastened to the right handle, will greatly assist in sweeping the grass from the mold-board so as to be more completely buried. If it is desired to turn under a second green crop the same year, this plowing should if possible, be done to a depth of ten to twelve inches, by means of that incomparable implement, the double Michigan plow; immediately after which a crop of buckwheat or Indian corn should be sown upon the fresh soil. This will grow, and may in its turn be buried with a shallow furrow in the same way, by mid-autumn, or sooner. In this way the soil will be well filled with two different strata of vegetable manure, at different depths, and will be greatly improved in productiveness by another year. If the corn is sown in drills about 20 inches apart, so that each drill, after rolling down, may be plowed under by every second furrow, it will be found that it can be more effectually buried, and there will be less waste of seed than if sown broadcast. Two bushels to the acre should be used.

If a dressing of lime could be applied about the time, or a little before the green crop is plowed under, it would be more useful than at any other time, and in many cases would be of much benefit.

The great advantage derived from green manuring, is the material which the growing coat of manure derives from the air and water of the soil; for although the soil itself is in some degree exhausted by every crop of plants, yet, by plowing the whole under, all that is taken from the soil is returned, together with all that is obtained from air and moisture. Broad or round leaved plants are found to get a larger proportion of their growth from the air, than those like wheat and grass, with narrow leaves; hence such should be chosen for green manuring. Nothing has yet been found in this country equal to a crop of red clover for this purpose. We greatly need a series of accurate experiments on the different crops adapted to green manuring.

Underdraining.

A correspondent (V. W. H., Trexlertown, Pa.) who has never seen any underdraining, wishes to try an experiment on a piece of meadow lying on both sides of a small creek—the ground gravelly, and generally too wet to bring good grass—and he desires practical directions how to perform the work.

We can only give, at present, very brief hints on the subject, as to treat it in full would require a volume. Cut the drains as narrow as the workman can stand in them, and at least three feet deep—let them run directly down the hill, so as to give rapid descent, which is especially necessary in gravelly subsoil; for if laid obliquely they will leak, and be comparatively of little use. As tile cannot probably be had by our correspondent, the drains may be filled with stone or with brush, as may be most convenient, the former being most durable, the latter more easily constructed. If much water flows in the ditch, and the descent is moderate, a free channel must be made for the water by placing a row of stones on each side of the ditch's bottom, leaving a space of two or three inches between; across both of these rows flat stones are laid, forming a covered channel. If flat stones cannot be had, hard or durable slabs will answer, but they will ultimately decay. The ditch is then partly filled with small stones, none being admitted half the breadth of the ditch; on these straw or inverted turf is deposited, and the rest of the space filled with the removed earth. But there are several precautions to be observed, or the earth will soon fall in among the stones. If the soil is clayey much less care will be needed, however, than with lighter soils, those approaching the character of quicksands being most of all difficult to manage and control. The precautions are, to place the smallest stones at the top, and flat stones, if to be had, to close all cavities; and if the soil has little clay in it, to cover these stones with a layer of slabs, before placing on the inverted sods or straw. Also, if the soil is light or gravelly, a smaller portion of the ditch must be filled with stones, than if much clayey; because the water will find its way down through the former more readily, at the same time that the less tenacious soil will be more apt to fall in among the stones if they are near the surface. In either case, an abundant depth of soil must be allowed for plowing freely over the drain.

When the streams are not copious, we are inclined to prefer, decidedly, the construction of *brush* drains, in all places where plenty of brush can be obtained; and these are more especially suited for the use of such

as may have had little experience in underdraining, as they require but little skill. The ditches are cut in the same way as for stone or tile, and are filled with brush by commencing with the upper end and placing the buts downwards and the tops upwards, and so proceeding down the ditch by depositing an even layer so as to fill it, the tops being thus left on the surface, and the buts resting on the earth. When pressed down, they will fill about one-third or one-half of the ditch; they are then covered with inverted turf, and the ditch completed by refilling with earth. Brush drains will last many years, the brush being excluded from the air and decay; they are less liable to obstruction from the falling of the earth than stone drains; and the water will always find ready channels among the branches for flowing off.

A rapid mode of refilling with earth consists in throwing it in with a common two-horse plow, a long whiffle-tree being used, so that the horses may walk on either side of the ditch. This will be assisted by a tool made of two plank fastened together in the form of the letter V, and drawn open end forward, throwing the earth towards the center and into the ditch. The digging may be facilitated by plowing a wide double furrow where each one is intended to be cut; and if this is done with the Double Michigan plow, about one-third of the depth will be excavated by the operation.

Where the whole surface of the field is too wet, the drains should be cut at regular intervals of about three rods apart—if the soil is heavy, nearer. If only portions of the field are wet, the drains should pass through those portions and be furnished with such side branches as may appear necessary—remembering always to give them as much descent as may be practicable. It should not be forgotten that a great deal of land that appears quite dry would be greatly benefitted by thorough underdraining, as has been actually proved in repeated instances. *Draining often proves one of the best securities against drouth*, by preventing the soil from becoming packed together when wet, and baking hard by drying; it renders it porous and friable, and highly retentive of moisture in drouth.

Removing Suckers from Corn.

A. Yeomans of Columbia, Ct., makes some suggestions and inquiries relative to stripping the suckers, and the false or abortive stalks, from corn for green fodder, and states that experience proves that their removal is injurious to the crop. The reason is asked for this result.

We know of no accurate experiments on this subject, but if the crop is lessened by stripping off the suckers, it must be, that by reducing the leaves which furnish nourishment to the roots, a check is given to the roots and to the whole plant. A result precisely similar to this occurs in the case of severe summer pruning given to some kinds of fruit trees—the sudden check given to the whole plant by removing so large a portion of its breathing organs, often proving highly detrimental to growth. Skillful pruners avoid this injurious consequence, by pinching off the ends of useless shoots or branches before they have attained a disproportionate size, which directs the growth into other parts, and avoids the necessity of lopping off large portions after they have accomplished their growth. It would be an interesting experiment to try the same treatment on corn, by removing the suckers when *first forming*, and observing the result. Will not our correspondent give this subject an accurate test by experiment, in the following manner?—Leave the first row untouched; strip the suckers from the second when just forming; and strip the third row at the usual time for fodder; and then weigh the whole crop of stalks, and the whole product of corn from each row. To make the experiment certain, and independent of accidental causes, let several successive triple rows be taken.

The suggestion of our correspondent, that the suckers are the only stalks that contain fertilizing pollen, and that the pollen from the other stalks is worthless or abortive, cannot be correct, unless the removal of the suckers is always performed before the dust falls from the tassels, which is not the case; and unless, in addition to this, the cobs are left unfilled with grains. The tassels bear the staminate flowers, and the ears constitute the pistillate flowers, and we know of no reason why the pollen from fully grown, well developed stalks, should not be as perfect as that from the more imperfectly developed suckers.

Red Clover Sown in the Fall.

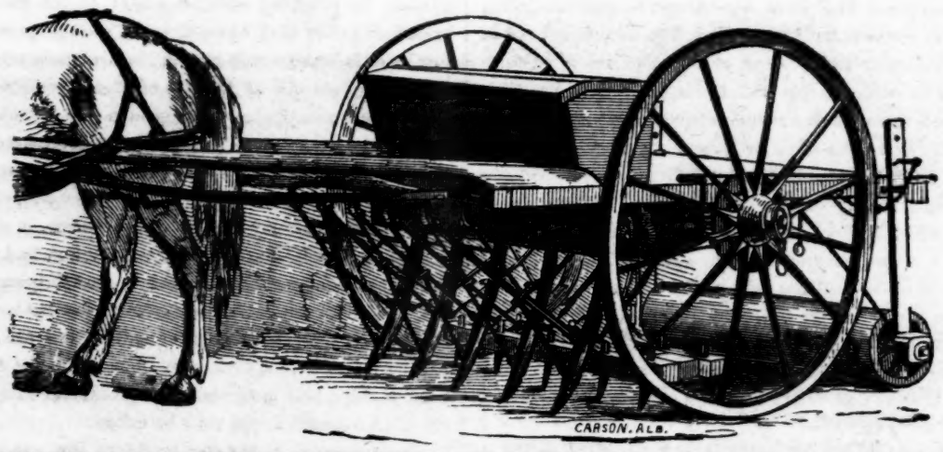
Messrs. Editors—It is asserted in the last number of your paper, that red clover does not do well sowed in the fall in our northern climate. A Mr. Taylor of this place sowed red clover seed in September, with wheat, during several of the past years. This he has done on the same ground at least for three years in succession.

He says the wheat crop of the third year was the largest, indicating a decided improvement in the soil, which is a dry sandy loam, lying on the banks of the Seneca lake. The clover was of large full growth, on the ast of August, when it was plowed under and so ed immediately with wheat and clover. The amount of land was one acre- on which was sown one peck of clover seed and 1½ bushels of wheat. Average yield of wheat, upwards of twenty bushels annually. On a different soil it might not succeed, but on a dry, warm soil, if sowed the last of August or the first of September, we think it would. Yours truly, S. B. Buckley. *West Dresden, N. Y., August* 8, 1853.

Important Discovery,

To Save Wheat from the Wheat Worm.

L. Tucker, Esq.—As the Wheat Worm does not attack Rye, it has been shown by experiment, that if a belt of Rye is sown all around the wheat field, the fly does not find the wheat to deposit its egg. Mr. O Smyley, of Princetown, has sown *two* broad-casts of Rye, all round his Wheat field, *for the last four years*, and the Wheat has completely escaped from the insect. Perhaps one cast of Rye might be sufficient to protect the Wheat. David Tomlinson. *Schenectady, August*, 1853.



Beebe's Patent Grain Drill and Corn Planter.

We give above a cut of this machine, which has been tested the past season, and found to work satisfactorily. It combines the power of drilling the land, dropping or distributing the grain evenly in drills, covering the seed, and finally rolling the surface; or rather it does all these at once. The machine is very compact, simple in its construction, and of easy draft. The two horse drill is six and a half feet in width, and has nine drills at equal distances. In planting corn, only three drills are used, being three feet apart. The distributing roller is so arranged that by means of a screw the number of kernels of corn dropped may be regulated at pleasure, and also in drilling any other kind of grain, the quantity may be varied in the same way. The box on the platform of the machine is capable of holding three or four bushels of grain, and the platform in the rear may also be used advantageously for carrying extra bags of grain. The gearing of the machine and the action of the distributing roller, do not differ essentially from the best seed drills now in use. The drills are, however, so arranged that they can easily be shifted to make the required depth of furrow; their angle of inclination may also be changed at pleasure, and each drill is independent of the rest.

In the rear of the axle is a harrow, the teeth of which, following at the distance of about two inches from the drill furrow, completely cover the grain. The roller, which is divided into two sections, for convenience in turning, finishes the work. The harrow and roller may be detached, and the drill used alone. The one horse drill has only five drills, at the same distance apart as the large drill. They can be built of any required size to suit purchasers. The price of the two horse drill is $100. The one horse drill $80.

Messrs. Beebe and Wormer of this city are prepared to receive orders, and will exhibit the machine at the State Fair, and at the Albany County Fair.

Value of the Turnep Crop.—In England, where the humid climate is more favorable than ours to this crop, and where the mild winters save much labor in securing it from frost, its annual value is estimated to exceed a hundred million dollars.

Experiments with Charcoal.

We have been favored with the following extract from the forthcoming Report of the Survey of Essex County, by W. C. Watson, Esq., which will be read with interest:

Enormous masses of dust or debris of the charcoal, accumulate about the iron works of the county, and create incumbrances and deformities. It has been annually spread in vast quantities along the highways, constituting an admirable material for roads. An incalculable amount has been cast into the streams. The attention of men of observation and sagacity has been, within a few years, drawn to the use of this ingredient as a fertilizer. Experience has established its exceeding utility. In the midst of the disastrous drouth of last summer, while crossing a field in Moriah, occupied by Mr. Richmond, in pursuit of some Durham cattle I wished to examine, I observed a lot with its surface deeply and singularly blackened. Upon inspection I found it thickly strewn with pulveriezd charcoal. The field presented a rich verdure, strongly contrasting with the parched and blighted aspect of the adjacent country.

The following detail of this experiment, supplied at my request, attests the value of this material as a fertilizing principle. "The soil is loamy. The charcoal was applied on four acres of dry land, and one acre of moist soil, by top-dressing. The amount used was about one thousand bushels to the acre, spread on so as to make the surface look black, but not to incumber or obstruct vegetation. It was applied in September and October, 1850, at an expense by contract, of forty dollars. It was procured at a furnace, from a mass of pulverised charcoal left as useless, and was drawn one mile and a half. The effect was immediate. The grass freshened, and continued green and luxuriant after the surrounding fields were blackened by the early frosts. Although the last season had been so unfavorable for vegetation, Mr. Richmond realized one-third more than the ordinary yield of hay, and sufficient to repay the whole outlay. He thinks that he cut nearly double the quantity of grass upon this lot, that he did upon any similar meadow on his farm, and that the quantity of the hay is improved."

The Hon. J. S. WHALLON has made the most decisive and valuable experiments on this subject. His operations were extended through several seasons, and were observed with great intelligence and discrimination. The result amply sustains the conclusions derived from the preceding experiment. I may add that a similar application has been made under Mr. WHALLON's supervison, upon another tract in Elizabethtown on a soil of lighter texture and with entire success. In this instance the charcoal was applied chiefly to a crop of oats. The action of this substance seems to be effected by its physical combinations and its chemical affinities. It attracts the rays of the sun and unites with the fertilizing gasses of the atmosphere; it absorbs moisture, and combines as a new constituent in the formation of the soil. Almost imperishable, it must remain indefinitely, with no exhaustion of its properties, a perpetual invigorating agent in the earth.

The succeeding extract from a communication of Mr. WHALLON, elucidates his experiments and views on this very important subject: "I began the use of it in the year 1846, and first employed it as a top-dressing on a strong clay soil, which was plowed in the fall of 1845. I spread on about fifteen wagon loads of the dust to the acre, after the wheat had been sowed and harrowed one way. I was surprised to find my crop a heavy one, compared with my neighbor's, raised on the same kind of land. The wheat was of better quality and yielded four or five bushels extra to the acre. I have since used it on similar land, sometimes mixed with barn-yard manure, and sometimes alone, but always as a top-dressing, usually on land seeded for meadow. The results were always the most favorable. I find my land, thus seeded, produces more than an average crop of hay and always of the finest quality.

"I have also used the dust on loamy and interval land, with the potato crop. During the series of years in which the rot almost ruined the potato crop, I scarcely lost any potatoes from that cause, and supposed it was owing to the coal dust I used. My manner has been to drop the seed and cover it with a small shovel-full of the dust, and then cover with earth. In this way I have used all the coal dust I have been able to save from the coal consumed in a forge of five fires, and which amounts to about 250 loads per year."

In the colder regions of the Adriondacs, charcoal dust has been used with great advantage. The note of Mr. Ralph presents the experiment in the following language: "As a top-dressing for meadows, charcoal dust and the accumulation of ashes and burnt earth left on old charcoal pit bottoms have been used here with remarkable results, and I judge from the trials which have been made, that this application has added at least one-third to the hay crop, where it has been used. It was remarked during the past very dry season, when vegetation was almost burnt up by the long continued drouth, that those fields which had been dressed with this substance were easily distinguished by the rich green color of their herbage."

Time to Sow Plaster.

The question was asked in the May or June number of THE CULTIVATOR, what is the best time in the year to sow plaster? It is an important question, because thousands of dollars are expended annually for plaster, and if not used at the best time much is of course lost. I like the suggestion of A. K. BARRETT, in the July number, but would like to hear more, and from others. I have had some experience in the use of it, and have seen great benefit derived from using it on clover meadows, immediately after haying. It starts the clover up, so that the ground, roots and all, does dot get parched, or scorched I may say, which injures both land and grass. Our dry and scorching weather nearly always comes during the month of August. I have tried plaster on corn when it *first came up* this year for the first; then another light coating after the last hoeing, and I think it will pay well. I have formerly used it only after the last hoeing, but I believe corn requires a *stimulus* while *young*.

The question has been asked, (but not answered to the satisfaction of all,) Is plaster a stimulus only? I would ask it again, for the purpose of getting more information. Some farmers around here sow plaster while the dew is on, or after a shower, so that it will stick to the grass; but that does not suit my fancy. They contend that the sole use of plaster is to retain moisture, which is gradually absorbed by the plants, but that is not the case. Plaster is the sulphate of lime, which has a strong affinity for ammonia, one of the principal ingredients of plants, and which is infused largely in the atmosphere. This the rain, dew and snow brings to the earth, but it is dispelled again by the sun unless retained by some chemical agent. The earth absorbs some, and plants some, but the largest proportion is lost. Now plaster is that agent which absorbs large quantities of ammonia, and gives it off to the plants through the day, then receives another quantity at night. This, I contend, is the true object of plaster.

I would like to ask through the Cultivator, how newly seeded meadows can be kept from drying up the first summer after seeding? My land is a light loam; the seed comes up well, but does not get rooted sufficiently before the dry weather comes and kills it. I usually seed with oats as early as it will do to plow in the spring, and put on eight quarts of timothy and six pounds of clover to the acre. My land will produce good rye. Will it do to seed early in the fall? I would like an answer soon. W. *Oswego, July* 22, 1853.

To Prevent Injury from Ground Mice.

MESSRS. EDITORS—In your Cultivator for this month the inquiry is made for a method of destroying ground mice. The only method I can suggest is to pull their teeth out. But to prevent them from destroying hedges, I have found by trenching the rows, and throwing the dirt up to the trees, say six or eight inches high, in the fall, is, or has been, a perfect protection; and furthermore, I have found that the operation promoted the growth of the hedge. In the same operation with fruit trees, the same results may be realised. HENRY WHITE. *Utica, July*, 1853.

P. S.—I have practiced the above prescription for some two or three years, on my farm in Whitestown, where I am rearing a pear orchard of some four hundred trees, surrounded with a hawthorn hedge, very promising.

MOUNT FORDHAM, THE RESIDENCE OF LEWIS G. MORRIS, ESQ.

Visit to Mount Fordham.

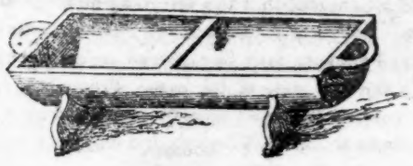
A recent visit to the fine country residence and grazing farm of Lewis G. Morris, Esq., the President of our State Agricultural Society, afforded us the high gratification of seeing not only the herds of beautiful and high bred animals, for which this place has become so celebrated, but the many conveniences and elegancies which are connected with the homestead. It is situated about ten miles north of New-York city, on a high ridge of land, sloping with undulations towards the Harlem railway about a mile on the east, and descending abrubtly at the west to the Harlem river, which at this place is nearly half a mile wide, and lies about a hundred and fifty feet below, in a valley with steep and wooded sides. The smooth and polished artificial landscape immediately about the mansion, in contrast with the huge masses of rocks which on more remote parts of the farm occasionally line the slopes, combine in rendering this spot one of great picturesque beauty.

It is very rare that so large a number and so great a variety of high bred animals are to be found on a single farm. The Durham and Devon cattle, the Southdown sheep, and the Suffolk, Essex, and Berkshire swine, were of the highest character. That our readers may be able to form an estimate on this subject, we will state briefly their number and origin. Of seventy-five pure bred cattle, about fifty are Durhams or short-horns, and twenty-five Devons. There are three imported short-horn bulls—Balco, a four-year red bull, bred by the celebrated Thomas Bates, designated in the British Herd-Book as No. 9,918; Romeo, a roan bull, bred by the Marquis of Exeter; and Marquis of Carabus, a two-year bull, bred by F. H. Hawkes of Farnley Hall, Yorkshire. There are also ten imported short-horn cows, selected from the herds of Thomas Bates; J. S. Tanqueray of Brent Lodge, Middlesex; H. N. Hill, Berrington, Shrewsbury; Harvey Combe, Cobham Park, Surrey; J. Emerson, Eryholme; and —— Fowle, North Allerton. We mention these different sources to show the eminent advantage possessed in this respect, of crossing without too close a breeding in-and-in. The last importation of short-horns belong jointly to L. G. Morris and N. J. Becar of Smithtown, L. I. There are of imported Devons, one bull and four cows. There are about forty beautiful Southdown sheep, the whole being obtained or bred from the flock of the celebrated Jonas Webb, of which about twenty are imported, and the residue raised from them. A Southdown ram, of extraordinary excellence and superlative beauty, was obtained there the present season, before the annual letting, and was selected as the best one in the flock.

The excellence of the Suffolk (or Windsor) breed of swine, and the probability of their becoming general favorites, led us to regard the fine specimens on this place with great interest. We found about 25 beautiful animals, and learned that they had been procured from three distinct sources, namely, from Earl Ducie, Lord Radnor, and —— Crisp, of Suffolk; thus securing all the advantages of crossing possessed in case of the short-horn cattle. In addition to these, there were eleven specimens of pure blood Berkshires, (five imported) consisting of two distinct families, and twenty-five animals of the Essex breed, imported and raised from the celebrated stock of Fisher Hobbs.

The principal farmery, consisting of the barn, stables, sheds, and piggery, was handsomely built, and kept in neat order. The *cast iron* pig-troughs were a great improvement in the common mode of construction of wood; they are indestructible by decay or the teeth of swine, easily kept clean, very portable, and always

"right side up." The annexed figure shows their form —their cost was about $1,50 each, made by J. L. Mott



of New-York city. Another in a circular form, with six divisions or partitions, would accommodate a larger number of animals.

The root crops, consisting of carrots and field beets, were in fine condition, and showed perfectly clean culture. An excellent provision was made for saving slops and every waste liquid from the house, which was conducted down a subterranean channel into a large tank. This tank opened on the lower side into the liquid-manure carts, so that they were filled without difficulty. In addition to this, an under-ground pipe conveyed it to the kitchen garden, where, by means of a hydrant, it was readily appplied to the growing vegetables.

We found a fine exemplication of the truth we have lately endeavored to enforce on the subject of the plentiful supply of water, which may be obtained from the roofs of buildings. A large leaden cistern in the upper part, furnished pure water at all times, affording the same conveniences in every particular that are obtained in the city by the use of the Croton water, and which might be easily secured by every country resident who will only take the pains to avail himself of the advantages within his reach.

Letters on British Agriculture—I.

London, August 18, 1853.

L. Tucker, Esq.—I have no doubt you are thinking me dilatory, and I fear you are blaming me for not having yet written the first word, in fulfilment of a promise made three months ago, to give you, from time to time, some account of my observations on the agriculture of Great Britain. My only apology, and I will give it without evasion, arises from the following considerations:

English agriculture is a very different thing from American. To raise produce under skies that are always weeping, in an atmosphere seldom hot and never very cold, where plants grow slowly, but have nearly the whole year to grow in, is one thing; and to raise it where Sol and Boreas divide the year equally, one compelling plants to grow fast, and the other killing them quickly, if not out of his way, is quite another thing. Almost as different are the processes of growing and fattening animals in the damp climate of these islands, and the dry and clear, but changeful climate of the United States.

Of all this I was measurably aware before, but did not realize the extent of the difference. I found, on coming here, that an American agriculturist, in looking at British agriculture, has a new subject before him. It seemed to me, that in such a case one must learn before he teaches. So much for not having begun sooner.

For similar reasons my progress may be as slow as my commencement has been tardy. If I should take a year to do what I proposed to accomplish in a few months, it would not be strange. There are many points about which I cannot speedily satisfy myself, and I am quite sure you would not wish me to speak till satisfied of the truth and importance of what I am to say.

Our English brethren are undoubtedly before us in agriculture. They are managing *their* resources better than we are *ours*. To me, as a citizen of a country just beginning its existence, it is no mortification to acknowledge this. If we are not up to them twenty-five years hence, then will be the time to be ashamed. They are not only in advance of us now, but they are "*going ahead*." This term, I believe, originated with Americans; but in its *application* it does not belong to them exclusively. Our friendly rivals are "going ahead." We shall not catch them napping. If we would not be ashamed of being behind by-and-bye, when we ought to be abreast, we have not only to come up where the English farmer now is, but we must become as scientific, as skilful, as wise as he will be a quarter of a century hence. Free trade has done wonders for English farmers. It has led them to say—"If six bushels now bring us no more than five did before, then we must grow six bushels as cheaply as we then did five, and we shall be as well off as before." That was the problem. They have already worked it out, and in working it out they have gained an impetus, which is carrying them over the line, and is making them better off than before. Driven from their dependence on high prices, they now depend on abundant and cheap production.

Since "free trade" in food is the order of the times, American farmers should aim at the same result; but, for reasons already alluded to, the result cannot in all cases be reached by the same means. The trade of an American farmer is about as different from that of an English farmer, as the trade of a blacksmith is from that of a carpenter. The carpenter might do well to imitate the blacksmith, in his habits of early rising, industry and perseverance; but if he should put his board into the fire and blow it, before bringing into shape, the result would not be good. Or, if the blacksmith should undertake to straighten his piece of steel with a jointer, it would not work well. And yet these imitations would not be more absurd, nor lead to much worse results, than a thousand imitations which might be made by American farmers, of what would be good usage in Great Britain.

Much harm has been done in our country, by imitating English practices, without duly considering the differences in soil, climate, and the true value of produce; and I now see clearly, what I did not before comprehend, that scientific men, those who are truly scientific, have, in some cases at least, misled practical farmers, in consequence of having received their instructions in foreign countries, and from books written in foreign countries. Foreign books on the applications of science to agriculture, may have been useful on the

whole; they may have awakened a spirit of inquiry, but they cannot be depended upon—they are liable to mislead. Each country needs an agricultural literature of its own, growing out of its own soil, and shaped to its own wants.

You will recollect that in giving your readers some account of British agriculture, I was to discriminate between such usages as may be advantageously copied, and such as may not. This has not yet been done. It is no easy task; and if I take more time to study the subject than was contemplated, I am confident that your well known caution, your wish not to mislead, and your utter contempt for the practice of teaching before learning, will lead you to judge leniently of any delay on my part, either past or future.

In the prosecution of this subject, it will be natural to inquire in the first place, what are *the annual results* of British agriculture, and then ascertain *how these results are obtained*, discriminating as far as possible between such practices as are applicable to American agriculture, and such as are not. Of the first of these questions, I propose to dispose very briefly, in the remaining part of this letter; but to dwell more at large on the second in future letters.

Strange to say, while the British government has gathered up and embodied the statistics of every other great interest, with wonderful accuracy, it has almost wholly neglected those of agriculture. Societies and individuals have done something to supply the deficiency, but not all that could be desired. According to the best authorities I can find, I have reason to believe that the following statements, so far as they go, are not very far from the truth.

The population of Great Britain and Ireland, at the present time, may safely be set down at 30,000,000. Several valuable writers, and, among others, McCulloch, have estimated the agricultural population at 2,500,000. It has been common, also, to estimate the male field laborers at 750,000. Respectable as are the authorities, I cannot but think them too low, the former by half a million, and the latter by a quarter of a million. If so, then the following statements are near the truth:

Whole population,	30,000,000
Agricultural population,	3,000,000
Male field laborers,	1,000,000

The British Empire (in Europe) embraces not far from 75,000,000 acres. It is equal in extent to sixteen such states as Massachusetts. This would give for each person two and a half acres; whereas, in the state of Massachusetts, there are five acres for each person, which shows that the population of Massachusetts has attained just about half the density of that of the British empire. The lands of the united kingdom may, without essential deviation from truth, be distributed thus:

	Acres.
Cultivated land, including meadows and arable pastures,	50,000,000
Pasture land, valuable as such, but unfit for the plow,	10,000,000
Fens, bogs, heaths and moors, nearly unproductive, but reclaimable,	10,000,000
Broken land, slightly productive, and nearly hopeless,	5,000,000

I do not suppose that the foregoing numbers are accurate. They are given as round numbers, expressive of what I suppose may be regarded as an approximation to the real state of the case. Proceeding in the same manner, the land actually under the plow may be set down at 25,000,000 acres, and may be distributed thus:

	Acres.
Wheat,	5,000,000
Barley,	2,275,000
Oats and rye,	6,250,000
Beans and peas,	750,000
Potatoes, turneps, and rape,	5,000,000
Clover,	2,000,000
Fallow,	2,000,000
Hops,	50,000
Flax,	100,000
Gardens,	250,000
Various other crops,	1,325,000

McCulloch, in his Dictionary, Geographical, Statistical and Historical, the materials for which were collected, of course, before 1849, as the work bears date of that year, gives the following, as what he believes to be the annual value of the woodlands and pasturage of the united kingdom. I copy his estimate for England and Wales, and annex his sum totals for Scotland and Ireland:

Cattle, 1,100,000,	£13,200,000
Calves, 200,000,	600,000
Sheep and lambs, 6,800,000,	10,200,000
Wool, (exclusive of slaught'd sheep)	4,056,000
Hogs and pigs, 555,000,	1,000,000
Horses, 200,000 grown annually,	3,000,000
Poultry, eggs, rabbits, deer, &c.,	1,344,000
Meadow and grass,	13,000,000
Dairy produce,	12,000,000
Wood, uncultivated land and wastes,	3,350,000
Total for England and Wales,	£61,750,000
Same for Scotland,	8,500,000
Same for Ireland,	21,500,000
Total for the empire,	£91,750,000

The following figures also are from McCulloch · "Aggregate annual value of the agricultural produce of the united kingdom:"

For England and Wales.	
Crops and gardens,	£79,992,857
Pastures, woods, and wastes,	59,750,000
Total,	£139,742,857
For Scotland.	
Crops and gardens,	£18,744,287
Pastures, woods, and wastes,	8,500,000
Total,	£27,244,287
For Ireland.	
Crops and gardens,	£27,126,667
Pastures, woods, and wastes,	21,500,000
Total,	£48,626,667
Recapitulation.	
Total for England and Wales,	£139,742,857
for Scotland,	27,244,287
for Ireland,	48,626,667
Total for the empire,	£215,613,811

If ten per cent. be added to this amount, for increase since 1848, and the sum be reduced to federal money, we shall have, as the annual results of British agricul-

ture, in round numbers, $1,185,000,000—a result which seems to me astonishing, in view of the small number said to be engaged in that occupation. Englishmen boast that "Britannia rules the *sea*;" but, viewing human life as I do, I cannot but decide that her achievments *on the land* are far more glorious. Her present Sovereign, beloved, I may say, as well in America as in England, *for her goodness*, loves peace, and rejoices to cultivate the arts of peace. The royal consort, also beloved wherever men appreciate quiet usefulness, is said to be himself a farmer, engaged in superintending (through a bailiff I presume) the cultivation of a model farm, and in the rearing of noble *stock*.

But the foregoing figures give but a very partial, a mere dollar and cent view, of the subject. English agriculture has for many years *nearly* supplied a population of 256 persons to the square mile, or, (exclusive of lands hitherto little productive) of 320 persons to the square mile, with food; and English agriculturists, if I rightly comprehend their spirit, mean, before long, to *quite* supply an increasing population with as much, as good, and nearly as cheap food, as is consumed by any other nation in the world. They suppose that they have the resources; they believe that they will *find out the way*; and, with their present zeal for improvement, I think they will. As Americans, we may regret the improbability of being able to pay our dues to them in agricultural produce; but I think we shall have to admit, very good-naturedly, that in endeavoring to supply their own market, they but do as we would in their place; and, if necessary, to try to get along with less of their manufactures.

But there is still another view of this subject. The results of agriculture are not alone to reward honest labor, nor yet alone to furnish food; in connection with both these, there is an infinitely higher end to be gained. Intelligent husbandry, more than any, or all other causes, save the direct influences of Christianity, tends to the elevation of the race—to the hastening of that time when universal peace shall embosom the earth, when nations shall love instead of destroying each other, and when man shall everywhere recognize in his fellow a *man* and a *brother*.

I am happy to know, Mr. Editor, that you fully comprehend the refining, elevating, harmonizing influence of *enlightened* agriculture, as distinguished from the unintelligent, unprofitable, wasteful, tasteless proceedures, that have too much prevailed in our country. I know that you are laboring to diffuse right sentiments on this subject; I know, too, that you are successful. A change is coming over the scene. Respectfully yours,
J. A. NASH.

COMPOSITION OF THE ATMOSPHERE.—The minute proportion of carbonic acid gas in the atmosphere, had led some to suppose its presence merely accidental, and variable with locality. Guy Lussac ascended at Paris in a balloon, to a height of nearly 22,000 feet, or more than four miles, the greatest height ever attained by man, and by afterwards analysing a bottle of air filled at that height, found the composition precisely as at the earth's surface.

Spurious and Genuine Science.

Our readers may remember that we made some remarks a few weeks since, showing the absolute necessity of connecting PRACTICE with SCIENCE, so far at least as the application of chemistry to agriculture is concerned, and that mere theoretical reasonings on the results of cultivation were unreliable until their accuracy is proved by actual experiment. In the course of these remarks we pointed out some false assertions on this subject, published in the *Working Farmer*, by J. J. MAPES, and in reply he has come out in nearly five columns in his last number. Unfortunately for himself, he has furnished no arguments to prove his positions, but deals entirely in assertion, and of course but little notice of his article is needed from us.

He asserts at the outset that we admit "that *chemistry* has been useful to the *mechanic* arts." Now, we never admitted such an absurdity; and the public can judge of the fitness of such a person for a public teacher, who is so ignorant as not to know the difference between chemistry and mechanical philosophy. He understands so little of the nature of argument as not to know he was demolishing his own reasoning, in his attempt to refute our position, when he quotes the example of the old lady who told her boy "never to go into the water till he had learned to swim," for he denies the necessity of *practice* in connection with *theory*, at least in agricultural chemistry, if not in swimming. He stoutly "asserts," (to use his own favorite word so often repeated,) that there "need be no error in anticipating results from theory," and yet in direct contradiction of this position, he unwittingly admits all we have said, by stating that "we have placed our laboratory in the middle of a farm which we cultivate ourself, and on which we try every experiment which theory may suggest, before promulgating it."(!!) As a specimen of the style of his argument, we give his mode of disposing of our objection to his claim for the infallibility of the analysis of soils and its uses. "We re-assert the above," says he, "and put the *Country Gentleman* to the proof of the contrary."(!!!) This is certainly a cheap way for a professed public teacher, one who calls on the public for credence in his assertions, to get rid of doubts of his correctness. If such a puny man, (comparatively) as Christopher Columbus, had adopted this same mode of reasoning, he might have saved himself much trouble, and told the doubting sovereigns of Europe, "I re-assert what I have said of the western world, and call upon you to prove the contrary." What is the reason that numbskull, Robert Fulton, never thought of this easy way to prove steamboats of general utility, by telling his incredulous countrymen, "I assert that steamboats are a practicability, and I call upon you to prove the contrary." This mode of argument would never have answered for such men as these—what then must be the self-estimate of a man who presumes to adopt it at the present time?

It is quite needless for us to occupy more space in pointing out such specimens of contradiction and emp-

ty assumption. A cotemporary informs us that the editor of the Working Farmer receives $10 for an analysis of soil, and $25 for a letter of advice, and expresses its belief indirectly, that this is the secret of Mapes' scientific zeal. We do not endorse this, but leave our readers to form their own opinions, to do which they are fully competent. We desire, however, to say in conclusion, that it is fortunate for the agricultural public that, (so far as we know,) the thoroughly educated agricultural chemists of the day—men who have devoted years to laborious and accurate investigation of this subject, make no such pretensions as are so frequently and confidently put forth by the editor of the *Working Farmer;* and when we find a professed chemist asserting that he "has made analyses of the soils of more than 100 farms, and advised modes of culture founded on such analyses, and in no one instance without increasing the profits of the farmer more than *one-third*," we are led irresistibly to the conclusion that such assertions can only emanate from a pretender, and are made for other purposes than the promotion of the public benefit.

Vermont State Fair.

The Annual Exhibition of the Vermont State Agricultural Society for this year, was held at Montpelier, the capital of the State, on the 13th, 14th and 15th of September. The ground selected for the exhibition, was a beautiful plateau about a mile east of the village, and some two hundred feet above it, affording a full view of the town and the mountains by which it is almost entirely surrounded, with the Camel's Rump in the distance. The view on all sides was striking and beautiful. About twenty-five acres were enclosed by a substantial board fence. In the enclosure, buildings were erected for the exhibition of domestic manufactures, agricultural implements, dairy products, &c. A large tent occupied a conspicuous place, which was devoted to the use of the several committees. A trotting course of half a mile in length, was laid out for the display and exercise of the horses, on one side of which, long rows of seats, rising one above another, were erected, sufficient to accommodate three thousand persons.

The premiums on horses were offered with particular reference to the different varieties of the Morgan breed, of which about one hundred were on exhibition. They were arranged in four classes—the first embracing the descendants of the Sherman Morgan—the second those of the Woodbury Morgan—the third those of the Bulrush Morgan, and the fourth, crosses between any of the preceding classes—the whole constituting an exhibition which, for beauty and value, it would be difficult for any other state in the Union to equal.

The *Shermans*, including the celebrated Black Hawk branch, were far the most numerous, numbering about fifty. It was a source of regret that "Black Hawk" was not present, the illness of Mr. Hill preventing him from exhibiting Black Hawk or any of his horses. The premiums in this class were awarded as follows:

Stallions.—Over Seven Years Old.

1. Jesse Berry, Barton,	$12 00
2. S. P. Peck, Montpelier,	8 00
3. W. Bemis, Lyndon,	5 00
Between Four and Seven Years.	
1. Redin & Myrick, Bridport,	$12 00
2 L. Hammet, East-Montpelier,	8 00
3. L. Ford, Brownington,	5 00
Between Two and Four Years Old.	
1. J. Ide. St. Johnsbury,	$7 00
2. W. H. Chamberlain, Whiting,	5 00
3. J. W. E. Bliss, Calais,	3 00
Yearling Colts.	
1 and 2. E. C. Everettes, Vergennes,	$4 & 3 00
2. A. C. Palmer, Charlotte,	2 00
Brood Mares—Over Five Years Old.	
1. H. R. Johnson, Bradford,	$12 00
2. C. W. Sherman, Vergennes,	8 00
3. C. E. Benton, Newbury,	5 00
Between Two and Five Years Old.	
1. G. S. Gale, Bridport,	$6 00
C. E. Benton, Newbury, best yr'ling filly,	4 00

The committee say that they had great difficulty in deciding upon the merits of stallions from four to seven years old, for which there were 20 competitors for three premiums, and that if almost any three of them had alone been competitors, they would cheerfully have awarded them the prizes.

Of the *Woodburys*, there were seventeen stallions, two brood mares, one three year old filly, and one two year old stud colt on exhibition. The premiums were awarded as follows:

Stallions.—Over Seven Years Old.

1. R. M. Adams, Burlington,	$12 00
2. John Ayres, Grafton,	8 00
3. W. W. Blackman, Windsor,	5 00
Between Four and Seven.	
1. J. Scott, Vergennes,	$12 00
2. Caleb Lyman, West-Randolph,	8 00
3. J. & R. C. Johnson, Bradford,	5 00
Between Two and Four.	
1. J. McKenzie, Hartland,	$7 00
2. E. McKenzie, Ferrisburg,	5 00
Brood Mares.	
1. H. Keyes, Newbury,	$12 00
2. J. & R. C. Johnson, Bradford,	8 00
J. M. Ackley, Granville, for three year old filly,	6 00

Of the descendants of the *Bulrush* Morgan, only six or eight were on the ground. The first premium for stallions, over ten years old, was awarded to French Morrill, Danville, $12; the first for do, between five and seven, W. Carlton, Barre, $12. The 2d to John Doty, Montpelier, $8. The first for Brood Mares, to J. & R. C. Johnson, Bradford, $12.

The claimants for the above premiums were required to produce satisfactory pedigrees, so that the future publications of the Society may furnish authentic records of the blood of desirable Morgan horses.

Premiums of $12 to C. E. Benton, Newbury, and $7 to Harry Griffith, Tunbridge, were awarded for Morgan crosses.

The class of *foreign horses*, of which fifteen or twenty were exhibited, consisted mostly of different branches of the Morgan family. But one premium for each branch was offered. In the Sherman branch, a majority of the committee were in favor of awarding the prize to L. North, Champlain, N. Y.; but as they could not agree unanimously, they recommended also that a premium of the same amount be awarded to L. C. Hall, Manchester, N. H. The premiums for the best Woodbury and also for the best Bulrush branches, were awarded to E. Pike, Cornish, N. H. The committee also commended a pair of Sherman Morgan mares, exhibited by W. Pierce, Stanstead, C. E., and a stud horse of the same breed, belonging to G. W. Johnson, Clarenceville, C. E. The premium for "other bloods" was awarded to J. Chapin, Greenfield, Mass.

The premiums for "other blood horses," belonging to the State, were awarded as follows:—

1. L. Graves, Brookfield,	$12 00
2. E. J. Kelly, Rutland,	8 00
3. W. Holt, Weston,	5 00
For stud colt, first premium to M. E. & L. Cheney,	7 00

Of matched horses and single mares and geldings there was a fine exhibition, but the list of premiums we failed to procure.

CATTLE.—Of Short-horns, but few where exhibited; among them we noticed the fine bull, Duke of Wellington 2d, owned by T. Holton, Putney. A. L. Bingham of Cornwall, and D. M. Briggs of Richmond, were the only exhibitors of Herefords. Of Ayrshires and natives but few were on the ground. There was a fair display of oxen and steers, amounting to from 35 to 40 yoke. The Devons exceeded in numbers and beauty all the others imported breeds. Among them was a bull and two cows, imported last year by W. R. Sanford of Orwell, from the celebrated herd of Mr. Turner. The premiums awarded on Devons were as follows:—

BULLS—*Over three years*—1. D. Dennison, Hartland—2. Bemis & Dennison, Lyndon—3. Richard Green, Andover. *Under three years*—1. W. R. Sanford, Orwell—2. Daniel Davis, Springfield—3. R. Green, Andover. *Calves*—1. W. R. Sanford—2 and 3. H. M. Hall, Burke.

COWS—1. W. R. Sanford—2. H. M. Hall—3 S. D. Walbridge, Bennington. *Heifers*—1 and 3 to W. R. Sanford—2. U. M. Hall. *Calves*—1. U. M. Hall—2. S. D. Walbridge.

SHEEP.—Next to horses, the exhibition of sheep was the great attraction, more sheep having been imported into Vermont, during the last few years, than into any other State in the Union. Of the different varieties of the Merino, there were about 400 in the pens—a show, which, for variety and excellence, it would be difficult for any other State to produce. The French Merinos, imported or raised from imported stock, were in the greatest number, and the premiums were awarded, on

RAMS—*Over two years*—1. A. L. Bingham, Cornwall—2. S. W. Jewett and H. S. Morse—3. J. Gregory, Northfield. *Yearlings*—1. Jewett & Morse, for "Ten Thousand"—2. A. L. Bingham—3. A. V. Stockwell, Brattleboro. *Lambs*—1 & 3 S. W. Jewett—2. A. L. Bingham.

Ewes—pen of 5 over two years—1. H. S. Morse, Shelburne—2. A. L. Bingham—3. John Gregory, Northfild *Yearlings*—1. A. L. Bingham—2d and 3d, H. S. Morse.—*Lambs*—1 and 3, S. W. Jewett, Weybridge—2. A. L. Bingham, who also received the 1st and 2d premiums for the best 25 Ewes, not included in the previous classes. The committee also commend, as worthy of special notice, some sheep exhibited by Mr. Kimball, of Clarendon, a cross between the French and Spanish Merinos, for which no premiums were offered.

For German and Silesian Merinos, the prizes were awarded to

George Campbell, Westminster West, for best 2 and 3 year old rams; for the best and 3d best pens of Ewes, over three years. and for the 1st and 2d best under two years; al so the 1st and 2d for Ewe lambs—for the second best ram under two years, to A. V. Stockwell—for second best pen of Ewes, to W. R. Sanford.

Of Spanish Merinos there was a large exhibition; and among those exhibited by Messrs. Hammond, Messrs. Cutting, Mr. Campbell and Mr. Sanford, were some of the finest of this kind to be found in the country. The premiums were awarded as follows:

RAMS—*Over two years*—1 & 2. to W. R. Sanford, Orwell, and E. Hammond, Middlebury—3. to George Campbell. *Yearlings*—1. W. R Remelee, Cornwall—2. N. Saxton, Waltham—3. W. R. Sanford. *Lambs*—1 E. & W. Hammond—2. W. R. Sanford, Orwell—3. N. Cushing, Woodstock.

EWES.—For the best pen of 25. to W. & E Hammond, who furnished a statement signed by three reliable witnesses, that these sheep sheared over 9 lbs. of clean washed wool per head. The second was awarded to J. Cutting, Shoreham, whose sheep averaged 7 lbs. 6 oz. per head. For pens of Ewes, E. & W Hammond received the 1st prizes for yearlings and two year olds, and the 2d for lambs. G Cutting, Shoreham, the 2d prizes for yearlings and two year olds, and the 1st for lambs. Geo. Campbell, the 3d best for yearlings, two year olds, and lambs. The committee notice with approbation, a cross of the Silesian and Spanish Merino, presented by George Campbell, and a French and Spanish cross exhibited by E. Bridges, Pomfret, and recommend an honorary premium to each.

Of long wool sheep, there was some fine samples exhibited by D. Baldwin, Montpelier, John Gregory, Northfield, D. Fish, B. Town, Montpelier, E. Norton and E. Douglass, Chelsea, A. Stewart, Bristol, and W. Z. Warren, Middlesex.

SWINE.—G. F. Whitney of Woodstock, exhibited a pair of superior Suffolks with a lot of pigs, and received the 1st premium for boar and pigs, and the 2d for sows. N. Richards, Vergennes, exhibited a fine lot of Suffolks, and received the 2d prize for boars, the 1st for sows, and the 2d for pigs. Leander Warren, Middlesex, received premiums for a cross-bred Suffolk sow, and also for a lot of cross-bred pigs.

The exhibition of Butter, Cheese, and Maple Sugar, though not very extensive, was highly creditable to the State.

The exhibition of Domestic Manufactures, and of Fruits and Flowers, by no means equalled our expectations. The fruits consisted of two lots only, from L. H. Spear & Co., Braintree, and Mr. Ketchum, Sudbury. In the domestic department, was some fine specimens of needle-work, and a sample of shell-work by Mrs. E. P. Walton, of Montpelier, quite equal to anything we have ever seen.

The annual address was delivered on the 2d day, by Rev. Dr. Wheeler, Burlington, and was spoken of as able and instructive, and worthy of the occasion and the orator. He was followed by Gov. Wright of Indiana, in an extempore speech of great effect, which drew out three cheers for the "Governor and the Hoosier State," on its conclusion.

Upon the whole, we think our friends in Vermont, and particularly the devoted and efficient President of the Society, have great cause to rejoice at the gratifying success which has attended their efforts, although unfortunately, the rains of Wednesday afternoon and Thursday, prevented the carrying out of all their arrangements, and undoubtedly greatly lessened the attendance on the occasion. It was estimated that there were from 15,000 to 20,000 persons on the show grounds on Wednesday morning, previous to the commencement of the storm.

Don't Pull off the Suckers!

MESSRS. EDITORS—In the Country Gentleman of week before last, I noticed an inquiry with regard to the propriety of pulling off from the Indian corn, the scions commonly called suckers. In my opinion, neither do the advocates for pulling off nor those for allowing them to remain, give correct reasons for their practice. Indeed, I have never known a farmer intelligent on this subject, nor have I any confidence that experiments conducted as proposed in the article referred to, will lead to any practical results. A little observation, science will give us more useful information on this subject, than years of experiment without it. That the suckers have an important office to perform in the production of the corn crop, and, therefore, should be allowed to remain, will, I think, appear from the following consideration. The Indian corn (Zea mays) is a monœcious plant, that is the staminate and pistillate blossoms occupy different positions on the same plant. The tassel, as it is commonly called, is the staminate blossom, and furnishes the pollen by which the silk is impregnated, and the new kernel is produced. The cob which bears the silk or pistillate blossoms, is in process of elongation after the pollen or dust has disappeared from the tassel. Just at the point where more pollen is needed to impregnate the silk at the end of the cob, the suckers and abortion stalks supply it, thus filling out the cob with kernels to the very tip or end. Where the suckers have been pulled off, it will be found that one or two inches of the cob is barren, thus causing quite a diminution of the crop. What amount of diminution the crop may suffer I am not able to say definitely, but give it as my opinion at least, from a twelvth to a fifteenth part. If these suggestions appear of any value, you are at liberty to publish them, hoping they may be remembered until another year comes around. Yours, &c., W. H. SCRAM. *Sand Lake Academy.*

Answers to Inquiries.

Guano.—Can you inform me through the Cultivator, whether soil can be kept rich and to bring good crops, by only applying Guano or Lime, or whether Guano will only do for one or two years, and then cease to benefit by sowing it on, unless the ground is again made rich with manure. A Subscriber. *Trexlertown, August* 5, 1853.

Guano, as usually applied, exerts nearly all its beneficial influence, the present season, a few rare instances being known where it has continued to exhibit its fertilizing qualities for several successive years. We are satisfied, however, that if properly made into compost before applying, so that all its valuable ingredients, including ammonia and the salts, could become thoroughly absorbed by fine intermixture with large masses of clayey loam, turf, and other substances of like character, it might be made as durable as other animal manure.

Lime has proved a very durable manure in those cases generally where its application has been beneficial; but it should never be applied in connection with guano, unless it has been completely converted to a carbonate, or unless the guano is largely and thoroughly diffused through a compost.

Salting Hay.—I think an improvement on the plan of "Observer," in the August No. of the Cultivator, for salting hay, would be to sow fine salt broadcast, on the standing grass, while it was wet with dew, the morning previous to mowing. H. H. H. *Moriah, Essex Co., N. Y.*

Refuse of Salt-works.—In the Country Gentleman of 11th August, some questions were asked about the refuse of the Onondaga salt works. In addition to what was then stated in reply, we may add that we find in the Report of the Superintendent of Salt Springs for 1850, several analyses of these matters, made by Prof. Cook, of this city.

The *bitterns*, as they are called, and which constitute the sediment taken from the boiling brine, consist essentially of plaster. The scale which forms in the kettles, called *blocking*, and which is taken out when they are cooled down, is a mixture of plaster and salt, varying in the propoportions of the ingredients with the thickness of the scale—the thickest being nearly all salt, and the thinnest containing 40 or 50 per cent of plaster. The sediment taken from the *lime-rooms* in the solar fields, is plaster. The most valuable manure about the salt works is the wood ashes. There are perhaps 200,000 cords of wood consumed annually, in making salt, at Salina, Syracuse, Liverpool, and Geddes. These ashes usually have some salt mixed with them, which spoils them for making potashes, but does not diminish their value for manure. They are perquisites of the salt-boilers, and are sold at a nominal price.

Threshing Machines.—In answer to the inquiry of Warren Hill, of Machias, (Me.) who wishes to procure a machine suitable for small grain crops, consisting mostly of oats, barley and buckwheat, we state, that well finished machines, connected with endless chain horse-powers, may be had, completely furnished, of Emery & Co., and Wheeler, Melick & Co. of this city, for $158 for two-horse powers, and $125 for one horse powers.

There are no better machines of this kind made in the country, than those manufactured by the above firms, and we think them well adapted to the purpose mentioned by our correspondent. Good machines are also made by E. W. Badger & Co. of Otsego Co., and at several other places in different parts of the State.

Subsoil Plows.—I wish to ascertain through the Country Gentleman, what kind of a subsoil plow would be preferable on a clay or a clay loam soil, and whether it should be used in fall or spring for a spring crop, and also the price for the different kinds. A Subscriber.

The only subsoil plows manufactured in this country, are all constructed on the same principle—the best are those of Ruggles, Nourse & Mason, and of Prouty & Co. The price, full rigged, is about $10. As the soil becomes gradually compacted together again in the course of a few years after the operation, it would be looser and in fresher condition if plowed in spring. Unless the soil is well drained, the subsoil packs together again too soon to be of much use.

Treatise on Milch Cows.—In the Country Gentleman, page 149, Guenon's mode of examining cows is illustrated. Also on 308th page, is a notice of a method improved and simplified by John Nefflin. If you will be so kind as to inform me, through the Country Gentleman, where they can be purchased, and at what price, you will much oblige me. P. Y. Van Derveer.

Guenon's work can be had of C. M. Saxton, New-York—price 62½ cents. We presume Mr. S. could also furnish Mr. Nefflin's work.

Rosendale Cement.—Seeing in your last week's issue an inquiry for Rosendale Cement, I would say that the office of the company is at Newark, N. J., where I believe all the writing is done. A letter addressed to H. Wylde, Secretary, Newark, N. J., will elicit information as to where it can be obtained. There are generally agents in all the principal cities and towns for its sale. D. L. Judson.

Heavy Fleece.—I notice in the "Country Gentleman" for August 11, an editorial for "Mr. Campbell's Merino Buck Matchless." The live weight, 280 lbs., is within reason, as I have known it to be excelled by other breeds. As regards the fleece, (25 lbs. for one year's growth.) is it a *very rough* estimate, or do *you know* it to be the fact? C. E. K.

By reference to the statement again, our correspondent will see that the weight of the sheep and fleece, are both given on the authority of Mr. Campbell—not on ours, as he seems to suppose.

Strawberry Baskets.—Will you inform me where those small baskets can be bought in which strawberries are sold, and what they cost, and oblige S. H.

They can be had of B. Bicknell, Albany—price $1.50 per hundred.

J. G. J., *Ilion.*—Thomas' American Fruit Culturist is just the work you want. It can be had at most of the book stores throughout the country. Price $1.

B. T., New-Haven, Ct.—The *Wool Grower* is published at Rochester, N. Y., by D. D. T. Moore—monthly at 50 cents a year.

Domestic Economy.

Preserving Fresh Fruits.

Having seen in print some notice of Wm. R. Smith's successful process of preserving fruits, and not having seen any reliable exposition of his process, I wish to inquire through your paper, whether the same has been made public? If his process is valuable let it be made public, or let us have it in some way or other; if not gratuitously, by paying the discoverer a fair compensation. B. J. HARVEY. *Lenawee Co., Mich.*

We have frequent inquiries of a similar character. The process which W. R. SMITH has adopted, consists substantially in expelling the air from the jars of fruit by heat, and then hermetically sealing them, and so far, is nothing new. But the minute details of the process, varying with circumstances, and often so modified when applied to different fruits, that what would succeed with one, would entirely spoil another,—have only been leaarned by long and careful practice. These details cannot be described by words merely, and months of experience would be necessary to enable any one, however ingenious, to reach the perfection which has been attained. From what we have personally observed of the process, we do not think an unpracticed person could succeed from a description, or from actually seeing the whole, any more than an unlettered man could, without a day's previous trial, set down at a desk and dash off a dozen letters in a free and elegant hand, merely from hearing a lecture on penmanship, or seeing another write. We do not know whether W. R. SMITH would be wllling to receive and initiate pupils in the art—he would doubtless ask a large sum for doing so, as some compensation for the years of labor he has already bestowed in perfecting the art.

The Preservation of Eggs for Winter Use.

I notice on page 121 of your last, a new mode of preserving eggs. I think I can describe one that is much better, because cheaper, less roomy, and much more philosophical. It should be borne in mind, that eggs are mainly composed of albumen, mixed with a minute quantity of the salts of sulphur, phosphorus, lime and magnesia. The shell consists mostly of lime. Of the whole weight, the shell constitutes about one-tenth, the white six-tenths, and the yolk three-tenths. Few animal substances are so putrescent as eggs, unless preserved with care. The shell, composed as it is mostly of lime, glued together with a trifle of animal matter, is its most natural and safe depository. Yet even the shell yields gradually to the action of the atmosphere, so that a part of the watery fluid of the egg escapes, and air occupies its place, thus injuring the quality of it.

The great secret then of preserving eggs, is to keep the interior in an unaltered state. This is best done by lime-water, in which a little common salt is infused. This constitutes a fluid perfectly indestructible by air, and one that is so allied to the nature of the shell as not to be absorbed by it, or through it into the interior of the egg. On the other hand, salt or lime, in a dry state, will act on the moisture of the egg, as will strong ashes. This plan, also, will save more eggs in a given space than any other. It will also admit of keeping them in cellars ever so damp, and, I had almost said, ever so foul, since nothing will be likely to act on the lime-water. As eggs are very nearly of the specific gravity of water, and so near with it, I have little doubt that eggs barreled up tightly, in lime-water, could be transported as safely as pork.

Lime-water may be made in the most careless manner. Seven hundred pounds of water will dissolve about one pound of lime. A pint of lime, therefore, thrown into a barrel of water, is enough, while ten times as much can do no hurt, and will not alter the strength of it. The salt, which I do not deem very important, should be put in in a small quantity, say a quart to a barrel. All are aware, that a very large quantity of salt may be dissolved in water. Brine, strong enough for pork, would undoubtedly hurt eggs.

Having made your lime-water, in barrels if you are a merchant, and in stone-pots if you are a small householder, drop your eggs on the top of the water, when they will settle down safely. It is probably important that no bad eggs go in, as it is supposed by some that they would injure others. To test your eggs put them in clean water, rejecting all that rise. A better remedy is to look at them through a tube—say a roll of paper, by daylight, or hold them between your eye and a good candle by night. If the eggs are fresh, they will, in either case, look transparent. If they are a little injured, they will look darkish. If much injured, they will look entirely dark.

Eggs, well put up and kept in this manner, will keep, I cannot tell how long, but until they are much more plenty and cheap than at present, quite long enough.

Leached ashes well dried, and even grain, have, kept eggs very well, in my experience, but no method is so cheap and obvious as the lime-water. As lime absorbs carbonic acid slowly, and thus becomes insoluble, so almost any lime, even though it has been slacked for months, will answer the purpose. Lime water, permitted to stand still, will immediately be covered with a transparent film. This is the lime of the water uniting with the carbonic acid of the atmosphere, and returning to the state of limestone, and does not hurt the eggs.

I send you this long account of a small thing, not because it is new, but because many people forget old and very familiar things. C. E. GOODRICH. *Utica, August 26th*, 1853.

TO BAKE APPLES.—The person who has eaten baked sweet apples with milk, needs no commendation of the article. For this purpose Tallman Sweetings are best But those who have tart apples only, may secure a delicious dish by the following process:—Pare them, if thick skinned, cut out the largest portion of the core from one end and place the fruit on well glazed earthen dishes or pans, with the cored end upwards, and the cavity filled with refined powdered sugar. Then bake them. All we ask is trial.

Horticultural Department.

Frauds of Nurserymen.

Nurserymen have a better chance to cheat than most others, on account of the long time required for detection; and for this very reason their frauds are greater impositions, robbing time as well as money. Horticultural and rural improvement have been greatly impeded by the errors which they have committed, ignorantly as well as intentionally. A very fruitful source of unintentional errors has been the practice of taking things on trust. A young nurseryman wishes to propagate a certain list of fruits, or an older one wishes to add to his catalogue—they immediately send to some other nursery and obtain the trees, and not willing to lose five or six years to see them bear, they commence at once to raise and sell trees from them; and, like the man who borrowed his absent neighbor's horse, intending to ask leave when he returned, they sell the trees first, and intend to prove their correctness afterwards. An honorable and worthy nurseryman showed us a cherry tree in bearing, which he had procured under the name of Napoleon Bigarreau, and from which he assured us he had already sold hundreds of trees—that was then bearing a bitter little mazzard. Errors are in this way multiplied. We could write fifty columns in describing the mistakes which we have detected in receiving trees from different nurseries. An eminent individual, (now deceased) from whose establishment we expected to get every sort correct, sent us, as time has since proved, more than half his trees under wrong names. These were mistakes, not frauds; and we have no doubt that most American nurserymen have endeavored to treat their customers fairly, but not having *seen* much of what they were selling, they were mostly working in the dark. We question, however, if as much as this can be said of European nurserymen, as they existed some years ago, although we know there were honorable exceptions—but the exceptions were not the rule. It appears they thought it of little consequence what was sent to the ignorant Yankees of the western woods. W. R. Prince, in order to prove the rascality of certain French dealers, invented a list of such names of fruits as he had never heard of, and his order was filled under those very names! We question if any body but Prince could have done this.

The increase of the nursery business has witnessed a great improvement in the accuracy with which it is conducted. Facilities for propagating from bearing trees have increased; the increased intelligence of the community admits of less toleration of blunders; and the desire of a fair reputation has stimulated many to accuracy, to say nothing about the promptings of genuine honesty, of which we believe a portion of our nurserymen have a respectable share. Europeans, where not actuated by better motives, have discovered that Americans actually possess shrewdness enough to know when they are well treated, and they find it to their interest to retain, if possible, what has lately proved a very large share of their custom.

In connection with this subject, we wish to add a few remarks relative to *warranting* the correctness of trees. Purchasers have sometimes required it of nurserymen, and we observe lately that some of the western papers avdocate legislative enactments for restoring losses by errors or frauds.

Now, there are some insuperable difficulties in the way of reducing this proposition to practice. In the first place, purchasers make quite as many mistakes as sellers; and we have known them, after a lapse of years, to forget and misplace lost names—to attribute certain trees to wrong sources—and to be quite mistaken in the correctness or the fruit produced, from ignorance or erroneous notions of its character. Nurserymen can afford to warrant their trees, under the following conditions only: The trees, as soon as received, must be set out, and registered in a book by a careful and disinterested person. There must be evidence preserved that any vacancies in the plantation are not supplied from other sources during the years that elapse before bearing,—or that the grafted portion is not browsed down by cattle, and that the stock does not spring up in its place; and lastly, sufficient pomological authority must be obtained to decide all doubtful questions touching the correctness of names. In most cases, all these precautions would be quite impracticable; and therefore it will be best to ascertain the most reliable sources, and obtain trees from those sources, even if it be at a greater distance or at an additional cost.

Notes on Fruits.

The Ott Pear.—The "ad interim report" of the Pennsylvania Horticultural Society makes the following statement with regard to the Ott pear: "This is the fifth consecutive year that we have had an opportunity of testing the quality of this fine Pennsylvania fruit, which we regard as the *most delicious of all summer pears.*" There are but two other summer varieties, which, in our opinion, come up to the Ott in flavor, or nearly so; these are the Rostiezer and Tyson.

Conestoga Cherry.—The same report gives the following account of this new cherry. "It originated in Conestoga township, Lancaster county, Pa. Fruit very large, obtuse heart-shaped, slightly indented at the apex, dark purple, stem an inch and three-fourths to two and a fourth long, slender, inserted in an open cavity; flesh purplish, firm; flavor sugary and very pleasant; quality, 'best.'"

Qualities of Various Fruits.—The following were the qualities pronounced by the Fruit Committee of the Pennsylvania Horticultural Society, on several of the older summer fruits, the scale of the American Pomological Congress, "good, very good, and best," being taken.

Cherries.—Buttner's Yellow, very good, Late Bigarreau (of Kirtland) very good; Buttner's Morello, scarcely good; Napoleon Bigarreau, very good; Graffion (or Yellow Spanish) very good; English Morello, best for culinary purposes. *Plums*—Bingham, very good. *Pears*—Manning's Elizabeth, very good; Rostiezer, best; Limon, very good; Tyson, best; Dearborn's Seedling, good; Bloodgood, very good.

American Agave.*

Most of our readers are familiar with the *Agave americana*, (or Century Plant, as it is improperly called,) in the form that it usually appears as a comparatively small, or pot or tub plant, but it is quite a rare sight to see it in full bloom. Very few plants, indeed, have ever bloomed in the northern states, but one of the finest of these was the specimen near this city, kept by the late Stephen Van Rensselaer, and which flowered in 1842. The flower stalk, which was some three or four inches in diameter, shot up when it began to grow, with great rapidity, and in some days actually rose about four inches. The whole height, some twenty-two feet, was attained in about two months. During its growth, as it was found to be making such rapid upward progress, it became necessary to remove the roof of the hot-house which held it, and build a second story above. Its flowers being of a greenish yellow, and not large, were not showy; but their great number—several thousand borne on so majestic a peduncle, rendered the plant one of great interest.

The opinion is a very common one that the American Agave blooms but once in a century. This is quite an error, as under the best culture some twenty or thirty years are sufficient; and without good care, more than a century would be required. A high hot-house heat is needed for a few years before the time of flowering.

New Fruits.—We have been favored by Dr. H. Wendell of this city, with samples of *Van Mons' Elizabeth* pear, which has borne on his grounds for the first time the present season. It is of small size, but of fine flavor, and should it prove productive, will be a valuable addition to our list of early pears.

* Pronounced A-gav'-y.

The Japanese Wind Flower.

The Japanese Wind Flower, (*Anemone japonica*,) recently introduced from China, by Mr. Fortune, is a fine herbaceous perennial of great beauty; it is very readily increased from suckers that spring up plentifully around the old plant. This plant would doubtless improve from seed; as it is, no garden should be without it. Its flowers are purplish red, from eighteen inches to two feet high; flowering from end of July till August or September. Any good garden mold will suit it.

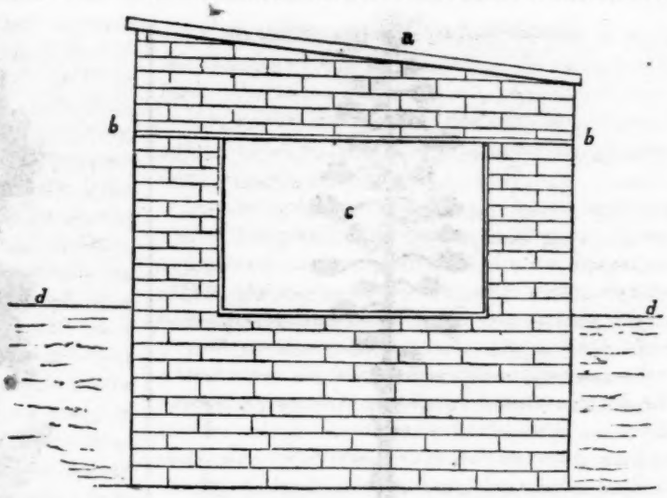
New Early Plum.

We have received a box of plums from J. B. Perry of Schaghticoke, of a sort much valued in that neighborhood for its good qualities. The tree is described as "very hardy, thrifty, and well proportioned in growth, productive, and ripening its fruit the first week in August, and hanging during all the month;" the fruit possessing the desirable qualities of good size, good quality, early ripening, and smallness of stone.

The specimens received were much injured by the intensely hot weather at the time they were sent, but making allowance for this, we should think them an agreeable but not high-flavored sort, and they may prove on further trial, on account of the above mentioned good qualities, worthy of cultivation. Their success in a single locality would hardly be a sufficient test. The specimens were full medium size, or quite as large as the Lombard or Lawrence; ovate, blue, with a dense bloom, suture moderate, stem considerably sunk, flesh thick, mild agreeable but rather insipid, free from the small stone. It appears to be quite distinct from any old sort, but we should think not equal in flavor to the Royal Hative, Imperial Ottoman, Howell's Early, and Hudson Gage, all of these ripening nearly at the same time. It may, however, be a better grower and a more productive tree.

Striking Cuttings in the Spring.

With the present system of planting flower beds, that is, with a large quantity of *green-house plants*, or as they are more familiarly termed "bedding plants," nothing is of so much importance as a good contrivance for increasing the quantity by cuttiugs during the early months of spring.



To do this to any extent, and successfully, requires the assistance of a considerable amount of artificial heat. For this purpose nothing surpasses dung heat. To the gardener who has frames, pits, and forcing houses at his command, this is no difficulty. But to the amateur, to the "thousand and one" occupiers of suburban and small country residences, whose taste leads them to have their lawns around their dwellings laid out in borders and clumps, (and who does not,) it is a more difficult task to fill these pretty little spots with a share of the more choice products of congenial climes. Many plants, such as the Verbena, Petunia, Cuphea, Heliotrope, Fuchsias, &c., are quite as well, if not better, struck from cuttings in the spring; all that is necessary being to take up a few plants of each sort in the fall, and preserve them in the windows and dry cellars of the dwelling; and by this contrivance we can bring forward a quantity sufficient for planting a large space, which may be obtained at little cost and labor. All that is necessary, after the pit is built, being stable manure, which is mostly obtainable on the place. The accompanying sketch is a section of a one-light pit, being five feet long, four feet wide, and four feet depth of dung. A, light; B B, bottom for the pots to rest on,—best if of slate or thin slab stone; if that is not obtainable, of wood,—C, door, by means of which hot dung is put in or turned; D D, ground level.

A little tan or other plunging material should be placed on the bottom of the slabs, up to the rim of the pots. It can of course be made with several lights, but for the purposes we have named this size will be found ample, as it will hold 100 four-inch pots, which, with the small compliment of twelve in each, will make twelve hundred plants, a far greater quantity than is actually required for the purpose.

If about the middle or end of February the forcing is commenced by placing the old stored plants in the pit, in a short time cuttings may be taken off and struck, and this continued till a sufficient quantity is obtained, and according as they root, pottted off into small pots with the assistance of a three-light pit or frame to harden them off. By planting time, three or four hundred healthy plants may be got, besides affording an excellent opportunity for breaking old Dahlia stools, and bringing forward a few of the more choice annuals as well as tomatoes, melons, cucumbers and squashes, which is of great importance in obtaining these luscious fruits and vegetables. Edgar Sanders. *Albany, Aug.* 28, 1853.

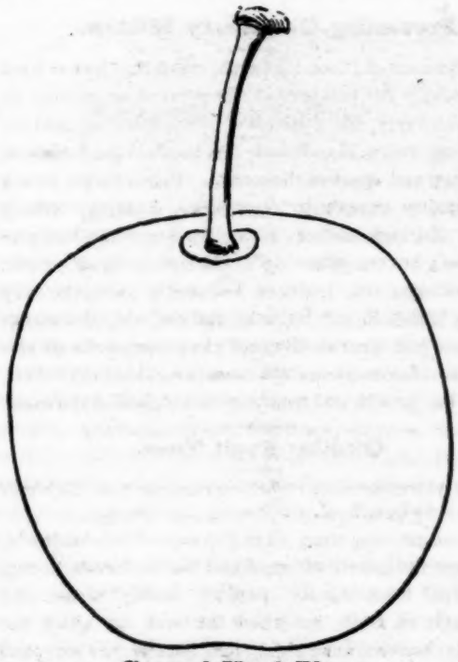
Transplanting Garden Plants.

I presume it will be satisfactory to many, to be informed when the different species of garden plants may be most advantageously transplanted. The months of August and September are preferable in this state, and in states to the north of it, for transplanting the following species; and the months of September and October for the states adjoining them on the south as far as the line of the Potomac; and October and November for the more southern states:

Strawberries of all kinds, if planted as above stated, will produce a fair crop the ensuing summer. It is preferable that the beds be three feet wide, and that four rows lengthwise be planted in the beds, the plants a foot apart each way. This width will admit of all the fruit being gathered from the sides without trampling on the beds, as is of necessity the case when the beds are of greater width. It need scarcely be stated that the ground should be previously well plowed or deeply dug and mellowed. A moist soil is preferable, and on no grounds will as heavy crops be produced as on drained meadow land. The strawberry will, however, flourish on drier soils and produce fair crops. The same periods are suitable for transplanting the fine large varieties of Rhubarb for tarts, the Sea Kale, Asparagus, Globe Artichoke Horse Radish, and Patience Dock, (the latter the best of all early greens, and very hardy, permanent and economical,) as they then become well rooted and established before the winter sets in.

All the hardy species of bulbous flower roots, such as Hyacinths, Tulips, Japan and other Lilies, Crown Imperials, Gladiolus, Bulbous Iris, Crocus, Narcissus, Jonquils, Fritillaries, Ornithologalum, and various others, and all the magnificent varieties of the shrubby (called Tree) Pæony, and of the Chinese and other herbaceous Pæonies, will, if planted thus early, become much more vigorous, increase more rapidly, and bloom with increased vigor and beauty.

Fruit and Ornamental Trees and Shrubbery and Roses, cannot be safely transplanted in this latitude, until the first of October, and those intended for the south should not be forwarded until the first of November, at which time vegetation will have become sufficiently dormant for their safe removal. To the western states, inland, they may be safely forwarded the beginning of October. Wm. R Prince. *Linnæan Garden & Nurseries, Flushing, N. Y., Aug.* 24, 1853.



General Hand Plum.

One of the largest of all plums known, is one which originated somewhere in the State of Maryland, and which has received the name of *General Hand*. It has of late years received a good deal of attention from fruit cultivators, mostly on account of its great size, and we therefore furnish the accompanying figure. Its value is increased by its productiveness, and the uniformity of its bearing. It is roundish oval, the suture rather obscured, smooth, color deep yellow, faintly marbled with green; flesh juicy, of tolerably good flavor, not equal to the Washington, and placing the fruit too low for amateur cultivation, and only for such markets as give the preference to the most showy sorts.

Garden Fertilizers.

I wish to inquire whether guano, bone dust, superphosphate of lime, &c., will answer for gardening purposes on a large scale, as well as stable manure. I wish to use large quantities of manure the coming year, and the fertilizers above named will be vastly more economical for me to use, provided they will answer the purpose as effectually as stable manure. Except what I can make in the regular course of my business, stable manure is a very expensive article; and if, with a liberal application, more concentrated manures will be as effective, I should think it best to give them the preference in use, even if I put one thousand pounds or more to the acre. DAVID H. RAYMOND. *Hartford.*

There is no kind of manure so *uniformly* beneficial in its results as stable manure, doubtless in consequence of its containing a full proportion of all the essential elements of fertility, and including a large quantity of vegetable matter. Next to this, undoubtedly, of soil fertilizers, as are generally sold in market, is guano, which also contains many enriching ingredients, and in a high degree of concentration, but which must be largely diluted or mixed before they can be advantageously applied. There can be no question that one reason of the frequent failures in the use of guano, is a want of its very thorough previous intermixture with substances which shall hold it in a proper condition till wanted for the use of growing plants. Phosphate of lime or bone dust, and super-phosphate of lime or bones dissolved in acid, are more limited in their composition, and specific in their application, and hence are less uniformly beneficial, although sometimes of great value.

We would recommend our correspondent to make a compost heap, using all the stable manure he can easily obtain, adding in successive layers with this, turf, loam, ditch scrapings, &c., but making *loam* constitute a very important part in the heap. If the loam is decidedly clayey, a quantity equal to the bulk of the stable manure will be sufficient; but if it is more sandy in its character, and therefore less retentive of ammonia and other ingredients, two or three times as much should should be taken. The thinner and more frequent are the layers of manure and loam, the easier and more perfect will be the intermixture of the two when the heap is worked over, and the better the compost. Turf forms an excellent element from its vegetable matter, and from the looseness it imparts. Whatever deficiency there may be in the required quantity of this compost, may be made up by the addition of guano, reckoning, at a rough estimate, a ton of the best Peruvian as equal to fifteen or twenty tons of good manure—both being *applied* in the best manner. There should be from ten to twenty times as much loam as guano, applied in as thin alternating layers as practicable. Bone dust or dissolved bone may be applied in a similar manner, but less care is requisite in providing large quantities of loam, except to dilute its strength. All these manures might, with greater convenience and perhaps better effect, be mixed with the stable manure compost heap; and if made long and rather flat, it could be pulverized and worked together best by means of a plow and harrow, and yoke of oxen. For accurate and specific experiments, to test the comparative merits of each kind of manure, they should of course be kept separate.

Loss of the Plum Crop.

If any of your correspondents can give me a hint or two through your paper, in regard to plum trees, I should be thankful. Mine are fine trees, excellent grafts, but invariably drop their fruit before ripe; the leaves and trees are hearty looking, but I never have any fruit worth mentioning. G. KINGSLAND. *Belleville, N. J., August*, 24, 1853.

Undoubtedly the loss of the crop is the result of the punctures of that general and most destructive insect, the *curculio*, of which our correspondent may readily assure himself another season, if he discovers small *crescent-shaped punctures* in the young fruit, and larvæ or small worms in the fallen specimens. The redemedy is jaring the insects down on white sheets, by means of a sharp blow on the stump of a sawed limb, and then destroying them, according to the directions repeatedly given in most horticultural papers, and in the best works on the culture of fruit.

Schenck's August Pear.

We have been favored, through A. Fahnestock, (of the firm of Thorp, Smith, Hanchett & Co.,) of Syracuse, with fine specimens of this large and fine pear, received, as we understand, from the neighborhood of Philadelphia. It is a large, yellow, obovate, exceedingly melting pear, of pleasant but not high flavor. It is stated to ripen during the last half of August—probably a little later—north of its present locality. Its earliness, large size, and exceedingly agreeable qualities, render it, we think, a variety of much value. It is supposed to be a seedling of the Virgalieu. The specimens had a slight musty taste in consequence of the packing.

Seedling Plums.

Mr. E. Dorr of this city, well known for his devotion to fruit culture, has favored us with samples of one of his seedling plums, which he has named *Howard's Favorite*. It is rather large, roundish obovate, with a slight neck, stem an inch long, in a small cavity, suture indistinct, color a fine rich orange yellow, shaded with purplish red, and often with rich reddish purple spots, next the sun; flesh rich yellow, somewhat fibrous, exceedingly juicy, rather rich and sub-acid in flavor, adhering to the rather small stone. "Good," or "very good," not equal in flavor to the best; very agreeable, but comparing well with Imperial Gage; shoots smooth.

New Cherries.

Please inform me through the Cultivator, where I can obtain the Great Bigarreau and August Duke, described in your August Cultivator. Watson Lowel. *Romeo, Michigan.*

The Great Bigarreau may be had at the nursery of J. J. Thomas, Macedon, N. Y., raised from the original tree, and also in quantity, and of large size, of L. M. Ferris, of Coldenham, N. Y. The August Duke has not, that we are aware, been introduced into the nurseries, and we cannot furnish our correspondent the desired information.

Transplanting Strawberries.

Is it beneficial to move strawberry beds directly after they have done fruiting? A friend of mine says he has followed the practice with complete success, for a number of years. Where can I get some plants of a large kind that will hull itself in picking, the berries large and productive? K. Norris.

The best time, decidedly, for transplanting stawberries, next to early spring, is during that comparatively dormant season that immediately follows bearing. If the old leaves are cut off, and only the half opened new ones left, the plants being mudded at the root, the soil settled with water, and an inch of manure mulching applied, to prevent crusting, they will succeed admirably. The only strawberry that hulls itself completely in picking, is the *Alpine* and its sub-varieties; but it is small, and commonly but little esteemed on account of its deficient flavor.

Mr. J. S. Gould has presented us with specimens of the *Lawton Blackberry*, grown in his garden in this city. Though grown on vines put out last spring, they were of large size, and promise to be very productive.

Preventing Gooseberry Mildew.

K. Norris of Bloomingburgh, states that he has tried successfully for two seasons, for preventing mildew on the gooseberry, the practice of "transplanting and separating, every March and November," the bushes in bearing, and inquires the cause. Preserving a young and thrifty growth by separating, pruning, cutting back, and high culture, is usually found the best preventive; but transplanting would tend to check growth. Mildew does not, however, commonly occur on very young bushes in any instance, and probably the means we have just mentioned would have been quite as efficacious. Some seasons are more favorable than others, when the growth and treatment are otherwise the same.

Girdling Fruit Trees.

Can you explain why girdling an apple-tree limb will cause it to bear? C. C.

In all growing trees, when the sap circulates freely, it favors the growth of wood and leaves, hence young, vigorous trees mostly produce strong shoots and sparingly of fruit; but when the trees are older, the vessels become more rigid, and impede the sap, and consequently the leaf or wood-buds are changed to fruit-buds, and heavier crops are borne. Whatever therefore, impedes the flow of sap, favors the production of fruit, girdling being one of these methods.

Markets, and Cost of Fruit.

It would be a very interesting inquiry to ascertain the actual amount of money paid out by the people of the United States for fruit, in those regions where planting and cultivation would be the only requisites for a plentiful supply at all times, and a surplus for market. And it would also be worth while, during this investigation, to make a careful estimate of the amount that would be likely to be used, if all could obtain cheaply in market, or by their own raising, whatever they might need—would it not be twentyfold at least the present quantity? In a single new State, (Wisconsin,) possessing comparatively a small population, and whose people do not probably feel disposed to pay heavy sums of money for luxuries, it is estimated by F. K Phœnix of that state, a gentleman very competent to the task, that "the direct tax, self imposed, for green and dried fruit, cannot be less, annually, than $300,000, which even then procures not one-twentieth part of a supply." We hear continual predictions of a glutted market of fruit —*when*, we ask emphatically, will it come? At the present rate, with the millions of trees set out annually, it seems on the contrary, to be constantly receding from us, the supply increasing actually less than the still more rapidly increasing and enormous demand in every direction.

Large Plums and Nectarines.—I have plums that measure as follows: Washingtons, six and a half inches, Columbias, six inches, and Nectarines six inches in circumference. If there is any one in the Empire State that can produce larger plums, I should like to know who they are. R. T. Borden. *North-Easton.*

The Grazier

"Ayrshires as Milkers."

I notice by your Country Gentleman of the 25th, a statement of the dairy properties of certain Short-horn cows, for the purpose apparently, of eliciting information as to the comparative values of Durhams and Ayrshires for dairies.

Mr. Edward M. Shepard of Norfolk, in this, St. Lawrence county, is a breeder of Ayrshires, and while he has made no experiments with particular or individual cows, like your correspondent "P., of Sennett, N. Y.," which, by the way, is not a proper method of testing the value of breeds, unless the whole herd be taken, has yet permitted to be published in the papers of this county, at the solcitation of myself and other friends, trials of his *whole* herd, the substance of which is here submitted.

Mr. Shepard had 14 cows, Ayrshires and their crosses on natives, half-bloods, six heifers, *milking for the first time*—time, the third week in June—feed, grass only.

Allowing one cow for family use, and deducting 40 per cent from heifers, and his trial stood thus:

Cows,	8
Heifers 6, reduced to cows, is,	3·6
	11·6
Deduct one cow for family, is cows,	10·6

The product for the week was 12 lbs. 12 oz. per cow. The first week in July, feed grass only, and much affected by drouth, he milked twenty, *eight* of which were heifers, milking the first season, and this trial stood thus:

12 cows, less one for family, is,	11·
8 heifers, 40 per cent off, is	4·8
Full cows,	15·8

The product for the week, per cow, was 14 lbs. 13 oz. and a fraction over.

But, lest your correspondent might think my allowance for heifers too much, which, however, is considered a just allowance by the dairymen of this county, the result of the last trial, *without any deduction* for their being heifers, and four of them only two years old at that, was 12 lb. 5 oz. and a fraction per head, for the week.

I am advised by Mr. Shepard, that for the purpose of testing the merits of these breeds for the dairy, he will select some five or ten cows from this Ayrshire herd, and place them for some one week next autumn, or next June, against an equal number of any *other pure breed* of the same respective ages, owned by any one breeder or dairyman of the state. The cattle to feed upon grass only during the week, and for two weeks prior to the trial. The time to be notified through the Country Gentlemen. The time to consist of seven days, fourteen morning and evening milkings, each milking to be weighed, and each days product churned and weighed by itself, and the final test result to be in the aggregate, containing not over one ounce of salt per pound of butter.

Mr. Shepard will wait the pleasure of your correspondents. H. G. Foote, Secretary St. Law. Ag. Society. *Ogdensburgh, Aug.* 30, 1853.

Short Horns as Milkers.

I notice in your issue of the 4th, an inquiry as to the comparative value of Short Horns and Ayrshires, as milkers. I never owned an Ayrshire; but for the last fourteen years, having milked Short Horn grades, I send you the results of several trials made with them, previously remarking, that as we intend to make only just sufficient butter for family use, have been at no trouble to prepare a suitable "milk-house."

Cow No. 1, fourteen years old, made in one week, in the month of June, 9¼ lbs. butter—again in October, made 9 lbs. 2 oz. same time; this cow was always fat.

No. 2, three years old, made at the rate of 12¼ lbs. per week.

Nos. 1, 2 and 3, made 33 lbs. in one week of the month of June.

No. 4, three years old, with her first calf, made 11 lbs. 2 oz. in six days—the feed of these cows was grass pasture and *nothing else*.

Gipsey 2d, thorough-bred, in the month of January, on hay feed, no roots or grain, gave 24 quarts of milk per day. The only trial ever made of the *quality* of this cow's milk, was during the season of 1850, when her calf was allowed to take one-half of her milk, no more, he weighed at seven months old, 700 lbs. P. *Sennett, N. Y.*

Good Milch Cows.

A writer in the Middletown (Conn.) *Sentinel and Witness*, urges upon the citizens and farmers of that vicinity, the necessity of forming an association for the improvement of the breed of Milch cows—a branch of improvement to which but little attention has as yet, been paid in this country. The great object of the principal breeders of cattle in England, has been to produce animals of fine form and symmetry, which will mature early, and fatten at the least expense, with little or no regard to the milking properties of the females. From herds bred for this purpose, most of our expensive importations have been made. The results have proved, in the highest degree, beneficial so far as the production of beef is concerned; and in a greater or less degree in the milking properties of our native cattle. But we want a breed of uniform good milkers; and we know of no field, which affords a better prospect of a fair reward, than the breeding of such a race; any individual or association which would undertake the work, would deserve the praise of the country. The writer above alluded to, says:—

"But we cannot ask any one to take shares in this, or any other project where money is wanted, without meeting the question, "Will it pay?" The answer may be gathered from what follows:—

A good Cow, to be worthy of the name, should yield, on the average, for the first 100 days after calving, 7½ quarts at a mess, or 15 qts. per day, amounting to	1,500
For the next 100 days, she should average 5 qts. at a mess,	1,000
For the succeeding 100 days, do. 4 qt. do.,	800
Total number of qts.,	3,300

—giving her a respite of 65 days before calving.

3,300 qts. of milk, at 3 cts. per qt., is very near	$100
The cost of keeping may be reckoned as follows:	
For pasturage, the season,	$12
2 tons hay,	26

800 lbs. corn meal, or its equivalent,... 12— 50

Leaving a balance of,..... $50

or 100 per cent. on the cost of keeping, to pay for attention and expenses, without estimating the value of her calf, or the manure she may make. If the business be done on a *liberal* scale, we think there is chance for some profit. A cow that will do this, may be called *good*. It is common for persons keeping cows, to say, they will give 10 or 12 qts. at mess; but this is not always true—for not one in ten of the cows in Middlesex County, so far as the writer's knowledge extends, will average so much, for three successive months, with common feed. True, there some instances of much greater yield, but the *quality* is not the best. A gentleman of undoubted veracity, living within a mile or two of the city, assured me, a few days since, that one of his cows gave 56 lbs., (I think it was,) equal to 27 or 28 qts., daily. Her milk, however, was inferior to that from his other cows. Such cows are rare; but it is from the rarest and the best that a preserve,—if I may use the word,—of cows for breeding and for the dairy should be selected."

Great Sale of Imported Cattle.

An Association was, last year, formed in Northern Kentucky, for the purpose of importing the best stock which could be procured abroad. The sum of $25,000 was raised, and Messrs. GARRARD, DUDLEY and VANMETER, were despatched to England to make the purchases. They returned in June, bringing with them

25 head of Short Horn Cattle,
6 Southdown Sheep,
9 Cotswold, and 3 Leicester Sheep.
1 Cleveland Bay Horse.

These animals, with the exception of one Cotswold buck, which died on the passage from New-York to Kentucky, were disposed of at public sale, on the 18th of August, on the farm of Mr. BRUTUS CLAY, the President of the Association, in Bourbon county. We are indebted to the attention of a friend who was present, for the annexed account of the sale:

DURHAM BULLS.	Cost.	Sold for.
Young Chilton, 3 yrs, Mr. Warfield, Fayette co.,	$600	$3,005
Diamond, 3 yrs, Bedford & Co., Borboun co.,.	630	6,001
The Count, 2 yrs, Mr. Gauff, Clark co.,.	525	2,575
Orontes, 33 mo., Mr. Gray, Woodford co,....	630	4,525
Fusileer, 2 yrs, Mr. Scott, Franklin co., ...	375	1,425
Senator, 16 mo., Messrs. Allen & Co., Fayette,	630	2,000
Belleville, 19 mo., Mr. Sutton, Fayette co.,....	1,050	1,500
Challenger, 19 mo., Mr. Gauff, Clark co.,.....	450	4,850
Fortunatus, 20 mo., Mr. Martin, Clark co.,....	220	1,800
Yorkshire Maynard, 17 mo., Mr. Taylor, Clark,	220	1,000
10 Bulls—average $2,868 10, ...		$28,681
DURHAM COWS AND HEIFERS.		
Lady Stanhope, 6 yrs, Mr. Clay, Bourbon co.,.	375	1,500
Lady Fairy, 5 yrs, Mr. Warfield, Fayette co.,.	525	1,100
Roan Duchess, 3 yrs, Mr. Brand, do	275	900
Goodness, 6 yrs, Mr. Coleman, do	520	2,250
Gem, 2 yrs, Mr. Vanmeter, Clark co.,... . ..	775	825
Equity, 17 mo., Mr. Walter, Woodford co , ...	400	1,000
Necklace, 16 mo., Mr. Clay, Borboun co,....	260	805
Bracelet, do do do	260	750
Mazurka, 2 yrs, Mr. Gray, Woodford co., ...	600	3,050
Lady Caroline, 2 yrs, Mr Clay, Borboun co.,..	400	1,825
Duchess of Suth'land, 2 yrs, Mr. Brand, Fayette,	375	900
Maid of Melrose, 22 mo., Mr Humphreys, Woodford co.,.....	775	2,200
Muffin, 14 mo., Messrs. Smith & Co., Scott co.,	220	535
Orphan Nell, 9 mo. Messrs Hill & Gano, Borb'n,	225	1,000
Flattery, 21 mo., Mr. Duncan, Clark co., ...	325	815
15 Cows and Heifers—average $1,282,.		$19,230
COTSWOLD SHEEP.		
2 Rams—at $1,010 and $710.....	1,125	1,720
6 Ewes—at $200, 270, 105, 221, 200 and 140,		1,136
LEICESTERS SHEEP.		
1 Ram at $50—2 Ewes at $52 each,.....	300	154
SOUTH DOWN SHEEP.		
3 Bucks at $755, $440, and $340,.....	$1,535	
3 Ewes at $350, $230, and $180, ...	760	525 2,295
CLEVELAND BAY HORSE.		
Sold to Isaac Wright, Borboun co.,.....	1,000	2,800

Aggregate amount of sales, $56,016.

Our correspondent says—"the company assembled was very large, composed of the most respectable and wealthy farmers from every part of the State; and the excitement and competition very great indeed. Terms of sale were, negotiable notes at four months, payable in bank for the amount, and each purchaser to give bond in double the amount of the value of the animal purchased, that said animal shall not be taken away or removed from the State, within twelve months from the day of sale. I have no idea that any one of the animals will ever be removed from the State, as all were bought with the view of keeping and using them. From the unprecedentedly, and I will add *unwarrantably*, high prices that the stock brought, you will perceive that the stock holders have made a *large profit*."

Recent Importation of Stock.

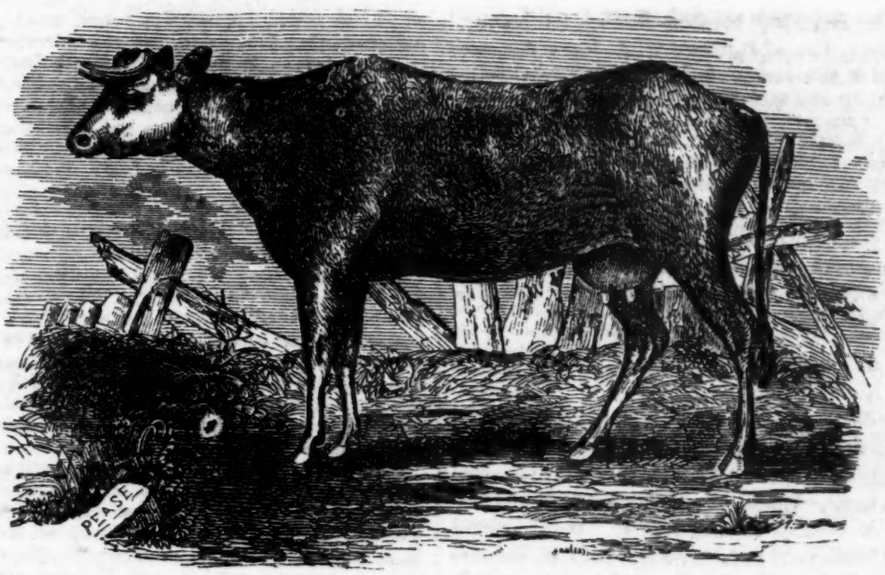
By the ship *Mary Carson*, having been seventy-eight days on her passage, there arrived two Durham heifers for Dr. HERMAN WENDELL of this city; four Durham heifers imported by GEO. VAIL, Esq, of Troy, for S. P. CHAPMAN of Madison county, and two thorough bred Deven heifers and one Devon bull, for GEO. VAIL, Esq, of Troy.

The Durhams imported by Dr. Wendell and Mr. Vail, are from the herd of Robert Bell, and are bred from Duchess bulls of the late Thomas Bates, Esq. The pedigrees of Dr. Wendell's are as follows: '*Lady Liverpool*," sired by 3d Duke of York, (E. H. B. 10,166;) dam Lily, by 2d Duke of Oxford, (9046;) "*Alice Maud*," sired by Grand Duke, (19,284;) dam Cicely, by Duke of Northumberland. These arrivals make a fine addition to Dr. Wendell's stock, in which are several heifers sired by Duke of Wellington, and Meteor, the premium bull formerly owned by Mr. Vail.

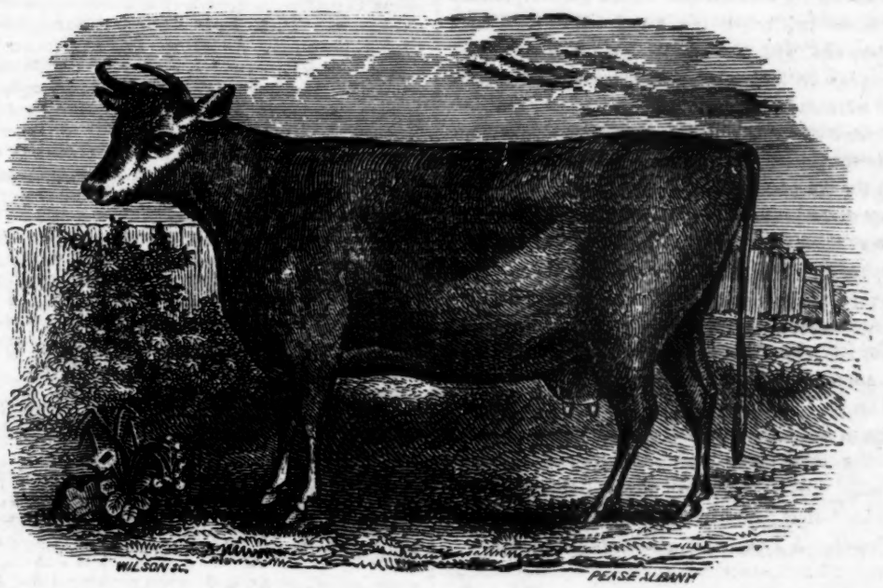
The following are the pedigrees of Mr. Chapman's heifers: "*Agate*," sired by 3d Duke of York; dam Annie, by 3d Cleveland Lad; "*Bright Eyes* 3d," sired by Earl Derby, (10,177), dam, Bright Eyes 2d, by Lord George Bentick; "*Frantic*," sired by 4th Duke of York; dam, Faith, by 4th Duke of Northumberland, and *Boukie*, (cow,) sired by 4th Duke of York, dam, Cicely, by Duke of Northumberland.

Mr. Vail's Devon heifers are from the herd of Lord Leicester, and the bull is from the herd of John T. Davy, the editor of the Devon Herd Book. We learn that Mr. Vail has concluded to collect a small select herd of Devons for his farm, as breeders.

The same vessel also brought two Short-horn heifers for Lorrilard Spencer, Esq., of Westchester; a Short-horn bull, "Harry Lorrequer," sold at Mr. Fawke's sale for 130 guineas; also two other valuable young bulls, "Liberator" and "Squire Gwynne 2d," bred by J. S. Tanqueray, of Henden, near London, as well as several others from other breeders; and a lot of Cotswold sheep. These last are for parties, we understand, at Boston and in some of the western states.



OLD JERSEY COW.



IMPROVED JERSEY COW.

Jersey or Alderney Cattle.

This breed of cattle has been known to some extent in this country for many years. The cows have always been noted for the richness of their milk, and for the high flavor and golden color of their butter. Gentlemenliving near cities, have frequently imported them for the purpose of supplying cream and butter for their own tables. A great objection to the general spread of this stock in this country, has been their want of sufficient hardiness for our climate. This was a fault to which the old breed of Alderney was particularly subject. It was a defect which lessened the value of the stock, even for their native region. The cows were of ten ill-shaped, rough and ragged, with poor constitutions, and little tendency to fatten; so that, though they would give a good quantity of rich milk, they required the strictest care, were large consumers of food, and were comparatively valueless at an early age.

Within the last twenty years, a great improvement has been made in this breed of cattle; the defects above mentioned, have been, in a great degree, bred out, and the animals, without having lost any of their value for the dairy, have been made to combine other qualities by which their aggregate value is greatly enhanced.

Nothing could show the improvement which has been made in this breed of cattle more strikingly, than the contrast presented by the above figures. Fig. 1 represents the Old Jersey Cow, and Fig. 2 is a portrait of "Beauty," a prize cow, four years old, bred by Col. LeCouteur. She has produced 11 lbs. 13 oz. of butter weekly—giving 19 quarts ofmilk daily.

Within a few years past, cows of the improved Jersey

or Alderney breed have been imported into this country. R. L. Colt, Esq. of Paterson, N. J., has a fine one, purchased of Col. LeCouteur, which has been shown at the fairs of the N. Y. State Ag. Society; Mr. J. A. Taintor, of Hartford, Ct., has two, selected by himself in Jersey; Frs. Rotch, Esq. of Morris, Otsego county, N. Y., has lately imported one; Mr. Peter Lawson, of Dracut, Mass., imported several, within the past few years, for himself, and for the Trustees of the Massachusetts Ag. Society, and other gentlemen in the vicinity of Boston. They are spoken of in high terms by those who have seen them.

Docking Lambs.

In the July number of the Cultivator, S. W. Jewett has given what he calls a safe method of docking lambs. It is simply this: "Slit down the skin lengthwise, about about an inch. The artery, if in a lamb, will be seen the size of common knitting-needle. Draw a thread of waxed linen or silk under the artery, with the common straight needle, or one a little crooked at the point is better. Tie up tight before you cut off the tail; which you will sever just below the knot. This is all done very easily, and with very little loss of blood. You may sprinkle a little dust or pulverized alumn on the wound to advantage."

Now I have no doubt that this is all very easily done by Mr. Jewett, or any other person who chooses, but is it so easy for the poor lamb to suffer it. But since Mr. Jewett has given his method of cutting off lambs tails, if he would give his reasons for so doing, and the advantages arising from it, I would be very thankful.

For my part, I am opposed to docking any animal, and sheep in particular, and I will give some of my reasons for it. The first is this, a long tailed sheep is of some advantage to the wool-grower, on account of the wool on it. And in the second place, it is of great advantage to the sheep, especially when flies are plenty. And in the third place, a long tail looks better than a short one. And in the fourth place, I think docking is a very barbarous practice, and one I hope will be soon be abandoned. A Farmer. *Alleghany Co., Pa.*

The State Fair at Saratoga Springs.

The recent State Fair was held under peculiar disadvantages, independently of the difficulties of its position from the center of travel. The frequent heavy and continued showers, greatly retarded the necessary preparations, some of which, as a matter of necessity from this cause, remained unfinished on the arrival of the appointed time, and the same cause deterred a larger number of exhibitors from forwarding articles of exhibition. In spite of these disadvantages, however, some departments of the show came fully up to those of any former state fair, and in some respects exceeded previous ones. The uniform excellence of the animals was remarked by all, not only in the large number of fine native, grade, and high-bred specimens, but also the high perfection which some of these high-bred animals had been made to reach. Without in the least degree disparaging the many exhibitors who showed eminent skill as breeders, and in their selections, we cannot omit to give special commendation to the large collection of cattle, sheep and swine, which were brought to the grounds by L. G. Morris, the President of the Society; and which, we think, taken for its extent and high merit, has never been equalled by any one individual on any former occasion. In the department of horses, likewise, a feature of extraordinary interest was furnished in the large and beautiful collection of the descendants of the celebrated Black Hawk, which was altogether superior to anything of the kind in the show of this breed of horses that has ever taken place in the state.

The exhibition of fruits was of a very high character, although very deficient arrangements were made for their display. The mechanical and domestic departments were quite limited.

Before proceeding to notice the separate objects, it is due to the officers of the Society to express special commendation for the selection of a very fine piece of ground, covered in part with a grove, and of so dry a soil that not the least inconvenience was experienced from the enormous quantity of rain that had lately fallen; and also for the ample and comfortable provision made for the animals, in the long and well arranged sheds erected for this purpose.

Cattle.—The display was marked with more *uniform* excellence than we remember to have seen on any previous occasion, and fewer poor animals. Among the Durhams, the fine animals from Lewis G. Morris and N. J. Becar, held a very conspicuous place for their merit and large number, and included several imported animals of great excellence. There were also many fine animals from a considerable number of other exhibitors. E. P. Prentice of Albany, had a beautiful collection of Ayrshires, and E. Corning, Jr., of Albany, and Remington & Bowen of Cayuga county, the best Herefords. A large and fine exhibition of Devons was made by S. H. Colby, and Remington & Bowen of Cayuga county. G. Vail of Troy, A. Stevens of Genesee, W. P. & C. S. Wainright of Dutchess county, and J. H. Caswell of Otsego; and conspicuous among the whole were the fine animals of this breed from L. G. Morris.

We observed a beautiful and symmetrical pair of three year old steers, and also an unusually fine yoke of five year old oxen, from George Sheldon of Sennett, Cayuga county, both a fine deep Devon red. The best ten yoke was from E. & H. Sheldon of the same place. Fine grade cattle were shown by O. Howland of Cayuga county, and by others.

Swine.—The exhibition was small, but contained animals of great excellence, among which the beautiful Suffolks, and the Essex and Berkshire animals from L. G. Morris, attracted great attention.

The Sheep were numerous, and many of them of great merit. E. Gazley of Dutchess county, exhibited a very superior imported Oxfordshire ram, said to weigh about 400 lbs. A very fine exhibition of Leicesters was made by Hungerford & Brodie of Jefferson county; some excellent animals were presented by J. A. & D. W. Rathbun of Springfield, Otsego county, and by several others. The show of Southdowns from L. G. Morris, Z. B. Wakeman, and others, was of the highest character, and great eagerness was shown by the crowd to see the extraordinary Southdown ram recently procured from the flock of Jonas Webb, by L. G. Morris, and which we have already noticed in a former number of this journal. Greene & Pease, West Cornwall, Vt., exhibited about fifty French Merinos, which attracted much attention. F. W. Dean, of the same town, had twenty-five Spanish Merinos, and George Campbell of Westminster West, Vt., had pens of Silesian Merinos and their crosses. Among the exhibitors of fine wool sheep in this State, were Joseph Haswell, of Rensselaer county, C. W. Hull, of New Lebanon, very fine Saxons, and Peleg Weeden, of Preston Hollow, full and half blood French Merinos.

There was a fine display of Poultry; the largest and best exhibitors of which were J. T. Andrew of West Cornwall, Ct., D. P. Newell of Rochester, and Wm. H. Southwick of New-Baltimore—the latter we regarded as a particularly choice assortment. Most of the collections were quite miscellaneous in their char-

acter, embracing the most of known breeds, in which the East India fowls largely predominated.

IMPLEMENTS.—The collection of agricultural implements was moderate in extent. The largest exhibitors were EMERY & Co., of Albany, and EDDY, DYER & Co., of Union Village, Washington Co. A new straw-cutter, (Daniels' patent) was exhibited by the latter, which promises to be one of the best machines for cutting short, that we have met with, in the ease and rapidity of its operation, and its small liability of becoming deranged by use; although its high price ($18 and $20) will be a real objection to small farmers. For cutting an inch or more long, and for cheapness, we saw nothing better than the old green-hide cylinder machines, made by Ruggles & Co., Emery & Co., and others.

The only reapers observed, were ATKIN'S Automaton, and EMERY'S new machine. The former we have repeatedly noticed in this journal, and is becoming well and favorably known; the latter is yet new, and in a great measure untried, but it is remarkable for its ingenuity and simplicity.

A number of railroad horse-powers were shown, wheat drills, plows, corn shellers, threshing machines, &c., which showed the constant and gradual improvement which is going on in our farm-machinery. Emery's and Dederick's Hay Presses were new to most persons.

The DOMESTIC MANUFACTURES did not present an extensive or showy collection, but contained some articles of substantial value and real utility, which we could not but regard as of much higher merit than all the highly wrought specimens of ornamental needle-work, which too often show more of a waste of valuable time than of genius or even skill in the operator.

FLOWERS.—Among the most brilliant objects were the fine specimens of dahlias. A rich and beautiful collection was shown by E. L. E. SMITH, of Mechanicsville, Saratoga county, and unlike some other collections, the sorts were all labelled. Another handsome labelled collection was furnished by J. BATTEY of Clinton county. ELLWANGER & BARRY, and FROST & Co., of Rochester, contributed many fine roses and verbenas; smaller miscellaneous collections of flowers were furnished by a large number of persons. We observed a large number of flowers, mostly annuals, from J. T. Van Namee of Pittstown.

Among the floral ornaments and floral structures, we observed the same general want of taste that we have had occasion to notice in our previous reports of fairs, viz, a want of fitness in the use of materials for structures. Columns, obelisks, and temples are objects too permanent and massive in expression to build up with such light and decorative materials as flowers. Even for urns and baskets, flowers can not with propriety be used for any other purpose than filling or ornamenting them, but not of forming the material of which they are constructed.

VEGETABLES.—The show of vegetables was small—some of the best were contributed by N. CULVER of Wayne county, S. BACKUS of Rochester, and P. RAILLY of Saratoga Springs. There was an interesting display of the new South American potatoes recently raised from seed by C. E. GOODRICH of Utica. Still more limited (in the same building) was the exhibition of butter and cheese, although apparently of fine quality. At the same place we observed among other samples of grain and seeds, some very fine wheat, corn, and other grains, from O. HOWLAND of Cayuga county.

FRUITS.—The collections of fruit were extensive and valuable. ELLWANGER & BARRY of Rochester, took the lead of all others, and exhibited 175 varieties of the pear, some of which were rare and valuable sorts. We observed among these fine specimens of Beurre Superfine, Beurre Clairgeau, and Duchesse d'Orleans, and as instances of the large size from high cultivation to which many of their specimens had grown, we found the Belle Lucrative and Beurre Gris d'Hiver Nouveau, about three inches in diameter, and the same in height. J. MORSE, of Cayuga Bridge, presented as usual a fine collection of fruit, consisting of over forty sorts each, of pears and of apples, and twenty of peaches; THORP, SMITH, HANCHETT & Co., about the same number; D. T. VAIL of Troy, a large and rare collection of pears, and large contributions of fruit were made by WILSON, THORBURN and TELLER of Albany, T. C. MAXWELL of Geneva, E. S. HAYWOOD of Rochester, A. SAUL & Co., Newburgh, and others. The best contribution of plums, was from E. DORR, of Albany. An unusual deficiency existed in relation to this fruit. A most extensive and valuable collection of pears, consisting of 151 varieties, was sent by HOVEY & Co., of Boston.

In comparing the more recent with the former exhibitions of fruit at our State Fairs, one great improvement was evident, besides the large introduction into general cultivation of many of the finer new and old sorts—this is the correctness in nomenclature, mistakes being much less frequent than formerly, although in some of the smaller collections we observed many errors.

HORSES.—On the last day of the fair, at 10 o'clock, the Black Hawk horses and colts entered the large ring, in presence of a large concourse of spectators. These animals were more than thirty in number, about twenty-five of which were attached to sulkies, and driven round the ring. Most of them were of great beauty and excellence, and they excited the admiration of the spectators, as nothing equal to this show had ever been presented before. A number of matched horses were also exhibited, some of them of high merit, among which we observed especially a large and beautiful span of bays, from J. BARBER of Auburn. There were some other fine horses which we had not an opportunity to examine to advantage.

At 12 o'clock of the concluding day of the Fair, a large audience assembled under the speaker's tent, to hear the annual address from WILLIAM C. RIVES, of Virginia. This address was occupied with the importance, dignity, value and profits of agriculture, and with numerous examples of the high tribute of respect which the greatest minds had practically awarded to it in all ages; and it was characterised with the ability, energy, chasteness, and eloquence, to be expected from its eminent author, who is himself a practical farmer, and skilled in the different departments of modern agriculture.

POMOLOGICAL MEETINGS.—Meetings of the principal fruit-growers present at the fair, were held on Wednesday and Thursday evenings, which proved highly interesting, from the numerous facts elicited on various pomological questions. We took notes of these discussions, but are under the necessity of deferring their publication until our next number.

POULTRY SOCIETY.—A convention of poultry dealers, breeders, and fanciers, was held on the 23d, at which "The New-York State Society for the Improvement of Domestic Poultry" was organized. After the adoption of the constitution, D. S. Heffron of Utica, was elected president; E. E. Platt of Albany, and M. Vasser, Poughkeepsie, vice-presidents; R. C. McCormick, Jr., Jamaica, cor. secretary; R. U. Sherman, Utica, rec. secretary and treasurer. A board of managers was also elected, consisting of N. S. Smith, Buffalo; A. A. Hudson, Syracuse; Geo. Anderson, Albany; D. P. Newell, Rochester; W. H. Southwick, New-Baltimore; D. W Van Slyke, Lyons; B. B. Kirtland, Albany; T. D. Miner, Clinton; Dr. Cole, Claverack; and Dr. S. Childs, New-York city. It was resolved to hold an exhibition of poultry during the ensuing winter, the time and place to be designated hereafter.

The receipts at the State Fair were, we hear, but not officially, about $6,000.

AMERICAN FOREST TREES.—In North America, we have 50 species of the oak, while all Europe has only 30 species. North America has 40 species of pines and firs, the United States over 20, while Europe has but 14 species.

Notes for the Month.

Sale of Earl Ducie's Short Horns.—The stock of the late Earl Ducie of Gloucestershire, England, has recently been sold at auction, at prices unprecedented in the record of cattle sales, excepting the recent Kentucky sale. The animals sold comprise some of the purest blood in the kingdom, and a considerable number were purchased by American gentlemen.

The Short-Horn herd, consisting of sixty-two lots, realized close upon ten thousand pounds, making an average of upwards of one hundred and fifty pounds each animal. The direct Duchess animals stood highest in the sale, which, it will be recollected are descended from the herd of the late Thomas Bates A red four year old cow, (Duchess 64) was sold for six hundred guineas to Mr. Thorne of Duchess Co; a roan heifer, three years old (Duchess 66) was bought by Col. Morris for seven hundred guineas. A heifer calf of the latter, some six or seven weeks old, brought three hundred and ten guineas—a heifer and her calf selling for more than a thousand guineas. The following animals were purchased by American breeders:

Bulls.—*Duke of Glo'ster*, red: calved Sept. 14, 1850; got by Grand Duke; dam Duchess 59, for 650 guineas to Mr. Tanqueray, Col. Morris and Mr. Becar of New York.

Fourth Duke of York, roan, calved Dec. 22, 1846; got by 2d Duke of Oxford; dam Duchess 51, for 500 guineas to Mr. Bell for Gen. Cadwallader of Philadelphia. Thirteen bulls and bull calves brought £2,494 16s. being an average of £191 18s each—$926.

Cows and Heifers.—*Duchess* 66, rich roan, calved Oct. 25, 1850, got by 4th Duke of York, for 700 guineas to Col. Morris, Preident N. Y. S. Ag. Society. *Duchess* 59, roan, calved Nov. 21, 1847, got by 2d Duke of Oxford, for 350 guineas to Jonathan Thorne of Dutchess county. *Duchess* 64, red, calved Aug. 10, 1849, got by 2d Duke of Oxford, for 600 guineas to Mr. Thorne. *Duchess* 68, red, calved Sept. 13, 1852, got by Duke of Glo'ster, for 300 guineas to Mr. Thorne.

There were 49 cows and calves sold, which brought £6,867, making an average of £140 2s. 10d each, upwards of $680.

On the following day the sale of sheep took place. Eighteen pure Southdown rams and ram lambs brought £326 10s.; 79 lots of ewes, wethers and wether lambs, £2,176 5s.—together, £2,502 15s.

The Cochin Chinas followed. The 64 lots realized £340 4s. "Sir Robert," the celebrated prize bird, fetching 27 guineas; Lord Ducie gave 40 guineas for him in February last.

Higher Price Still.—The Mark Lane Express of Sept. 5, states that Mr. Thorne of Dutchess Co., has purchased the celebrated bull "Grand Duke," of Mr. Bolden, near Lancaster, for the large sum of $5,000. This bull was purchased by Mr. B. at the great Kirkleavington sale of Mr. Bates' Short Horns. He was the sire of the "Duke of Glo'ster" and "Dutchess 66," alluded to above as having been purchased by Col. Morris and others.

Sheep for Pennsylvania.—Mr. James Slocum of Brownsville, Pa., has recently purchased a buck and four ewes from the superior flock of Merinos of Stephen Atwood, of Watertown, Conn. Also a buck and ten ewes of Mr. Chapman of Brandon, Vt. These were descendants from Mr. Atwood's flock, which is well known as one of the best of the old Spanish Merinos in the country. The fine sheep of the Messrs. Hammond, to which was awarded the first prize at the Vermont State Fair, came originally from Mr. Atwood; and if those purchased by Mr. Slocum equal these, they will will not fail to attract attention, even in the fine wool-growing districts of Pennsylvania.

French Merinos.—Two small lots of French Merinos, from the flocks of S. W. Jewett of Vermont, recently passed through this city, on their way to Alabama and Missouri, selected by T. Vivion and E. W. Jenkins, Esq. It would seem that the "Sunny South" are about to test the value of this large race of fine wooled sheep.

Bars and Gates.—"A farmer in perspective," will accept our thanks for his drawing and description of a set of bars for a fence, that shall be secure from displacement by the horns of cattle, although not adapted to the object of our paper. His contrivance will doubtless accomplish the purpose, but it is quite complex, and we are satisfied that the same amount of labor and material would furnish a good cheap self-shutting and self-fastening gate, and be incomparably more convenient; for a gate is opened and shut with a single movement of the hand, in less than one-tenth of the time required for the removal of a set of bars for the passage of a wagon. There is no field of a farm that is not entered many times in a year, and some of them more than a hundred times; and if any one is not satisfied with the waste of time and labor which bars occasion, let him remove and replace them for a hundred times in immediate succession, instead of the usual way of distributing the labor through the year, and he will probably become quite satisfied to resort to gates.

A Fine Specimen of Wheat.—We were shown at the ware-rooms of Emery & Co., in this city, a very fine specimen of Soule's White Chaff wheat, raised by Joseph Watson of Clyde, Wayne county. A sheaf, which we were assured was a fair sample of the entire field, showed the stalks of uniform height, and every head perfectly filled. The grain is plump and bright, entirely free from any foul substance, and weighs 63 pounds to the bushel. Mr. Watson is already known as among the best farmers in the state, and we are glad to notice so choice an evidence of his skill in wheat-growing.

Large Hops.—Mr. D. B. King of Waterford has, exhibited to us two samples of hops, taken from the same vine, but from different branches. One sample was taken from a branch trained upright to a pole in the usnal manner—the other from a branch trained on a cord, at an angle of about 45 degrees. The flowers

from the latter, were nearly three times as large as those from the former, some of them being two and a half inches in length. Mr. King attributes the difference entirely to the method of training. The leaves of those trained on the cord were fresh and vigorous, while those on the pole were completely riddled by insects, and he thinks the insects could not attach themselves to those on the cord.

To Clear Smut from Seed Wheat.—Make a strong brine, and wash the seed in it for five minutes, and repeat the process in another brine. Then dust the whole with air slacked lime. The brine clears out and destroys the smut, and removes all small weed-seed.

Fair in Rensselaer County.—The fair took place at Lansingburg, Sept. 12, 13 and 14. We are informed that the number of entries were not so large as on former occasions, though the character of the exhibition was fully equal to any previous show. Prominent among the Cattle, were the Devons recently imported by Geo. Vail, Esq., and which in spite of their long voyage, showed evident marks of high-breeding. The show of Horses was not very large, but embraced some fine animals. The rain diminished the attendance very materially the last day; still a goodly number were present to listen to the address, delivered by B. P. Johnsohn, Esq. We did not have the pleasure of hearing it, but we are informed that he was listened to with interest, and frequently received the applause of his audience.

The Wheat Insect.—This insect, whose ravages are gradually extending west, has been found, we believe, uniformily to commit the least injury where early ripening varieties have been sown, and where the crop has been put in early, so as to mature before the insect is ready for the assault. Farmers whose crops have ripened soonest have not lost a tenth, while others of late maturity have been more than half destroyed.

Yield of Broom Corn.—Broom corn yields from 300 to 1000 pounds of brush per acre, average, say 500—the price ranging from three to ten cents per pound. The seed ripens in the Northern States about half the seasons. Twenty-five to fifty bushels are a common crop, but sometimes over a hundred. The price of the seed 25 to 35 cents.

Depth of Roots.—Linus Cone, of Michigan, states in Moore's New-Yorker, as the result of all his examinations, that he has invariably found the roots of grass, grain, vegetables, fruit and forest trees, occupying *all the soil*, no matter what was its depth. He has taken out stumps where the roots penetrated a hard clay more than eight feet, and has gathered wheat roots by the handful, in a drain more than three feet beneath the surface. He hence infers that the deeper the soil can be plowed, and rendered friable and fertile, the better.

Water in Peat.—The importance of placing peat and swamp muck in a position to drain and dry thoroughly after digging, and before drawing, may be well understood when it is stated that usually from 80 to 90 parts out of a hundred are water, as commonly seen in a moist state, fresh and black from the swamp.

Super-phosphate of Lime.

Messrs. Editors—Can you inform me what are the ingredients of "Super-phosphate of Lime?" and something of the manner of manufacturing it? If you cannot, can you refer me to some one that can? I suppose there is nothing private about it. S. R. Holmes. *Hadlyme, Ct., August* 25, 1853.

Phosphate of lime, as found in bones and minerals, is insoluble in pure water, while super-phosphate of lime is readily soluble. The phosphate contains 48½ per cent phosphoric acid, and 51½ lime. Super-phosphate contains 71½ phosphoric acid, and 28½ lime. The object of the manufacturer is to convert the one into the other. To do this, he must abstract 32 pounds of lime from each 100 pounds of phosphate. This he accomplishes by adding 45 pounds of pure sulphuric acid, which takes away the 32 pounds of lime, forming sulphate of lime, while the 30 pounds of phosphoric acid *set free*, immediately unites with the undecomposed phosphate, forming the desired super-phosphate of lime. Fresh bones alone do not make a good *commercial* super-phosphate. It is not dry enough to put into bags. Nevertheless, it is a better *fertilizer* than super-phosphate made from animal charcoal, mineral phosphate, &c.

The greatest difficulty in making super-phosphate is to get the bones, animal charcoal, or any phosphoric compound that may be used, *ground sufficiently fine*. In the principal English factory, they are first passed through cast iron crushers, and then through differently set stone mills, revolving with great rapidity, till the phosphate is reduced to an impalpable powder.

Animal charcoal, at present, is much the cheapest source of phosphates in this country. It must be finely ground, made into a thin paste with about 80 per cent of water, and then be thoroughly stirred with 50 lbs. sulphuric acid, (sp. gr. 1.7) to each 100 pounds of dust. With coprolites, 60 per cent of acid is required, in consequence of the large quantity of carbonate of lime they contain, which of course has to be converted into a sulphate, before the acid can act on the phosphate. The vessels in which the mixture is effected should be lined with lead, as this metal is not corroded by sulphuric acid.

If you wish to convert fresh or boiled bones into super-phosphate, they must be crushed as fine as possible, moistened with about half their weight of water, and then 37 per cent of sulphuric acid, (sp. gr. 1.7) added, and the whole well mixed.

A superior article is obtained by mixing about 100 pounds at once, in a wooden or leaden vessel, throwing it out into a heap as soon as mixed. We have, however, made a good super-phosphate by placing the bone-dust on a wooden floor, wetting with water, and then adding the acid at intervals, continually turning over the heap, so as to well mix the ingredients. This is much the cheapest way. S.

Clay Soils.—The remedies for the inconveniences and defects of clay soils, are—thorough underdraining; coarse manuring: the application of sand, when not too expensive; autumn plowing; and, on a small scale, or for gardening purposes, paring and burning.

Albany Market, September 24, 1853.

FLOUR AND MEAL—The demand for Western and State Flour is rather more active at an advance of 6a12½c per bbl. on the prevailing prices of yesterday. There is no speculative movement, and the sales making are for home consumption and the supply of Eastern and River market places. The sales of the morning reach 1200 bls. at $6,12a6.25 for common to good State; $6,12a6.50 for mixed to fancy Michigan and Indiana and common to good Ohio; $6,50a6.75 for fancy Genesee and extra Western; $6.75a7 for extra Genesee. Corn Meal is firm and in request at $1.56a1,62.

GRAIN—With limited receipts, and a pretty active home and eastern demand for prime samples of *WHEAT*, better prices have been realized. Sales 1,800 bu. prime Genesee at $1,46½ 2,700 bu. on p.t. At the close very prime samples were held at $1,48. *CORN* is rather firmer with a good local and eastern demand. Sales 5 700 bu. Western mixed at 80a81c., the latter figure for lots at the road. *BARLEY* is in good request and the market rules very steady and firm. The receipts are fair but not large. Sales 14 000 bu. including 3,500 bu. prime two-rowed to arrive soon at 78c. and the remainder four-rowed at 84c., part here and to arrive soon. *OATS* are buoyant and in active request at very full prices. Sales 13,000 bu. state at 47c. No Western on the market

CATTLE MARKET.

ALBANY, *Sept.* 26.—W. W. Woolford's Bull's Head, Washington street.

Beef Cattle—567 at market. Prices—Extra, $7; first quality, $6,50; second, $6; third, $5a5,50.

Cows and Calves—18 in market. Prices from $25a30a35. All sold.

Sheep and Lambs—1208 in market. Prices of Lambs $1.75. 2, 2,50a2,75. Prices of Sheep, $2,50, 2,75, 3, 3,25, 3,50a4.

Hogs—Few in market. Prices per cwt. $5a5,50, and one choice lot at $6.

Remarks—The market is firm and steady.

CAMBRIDGE, *Sept.* 21, 1853—At market 2701 cattle.—About 1800 Beeves, 901 Stores, consisting of Working Oxen, Cows and Calves, yearlings, two and three years old.

Market Beef—Extra $7¼a7¾ per cwt: first quality $7a7¼; second $6½a6¾; third $5½a6; ordinary $4¼a5.

Veal Calves—$7, 9a13—very scarce.

Stores—Working Oxen—$109, 118, 129, 136, 142a172.

Cows and Calves—$25, 32, 36, 44, 52a68.

Sheep and Lambs—6903 at market. Extra, $5, 5½, 6a8. By lot, 2½, 2,67, 3, 3¼, 3½, 3¾a4¼—quick.

Swine—Wholesale, still fat hogs 5½, and hard corn fed 6c per pound.

Choice Fowls.

GENTLEMEN who may be desirous of procuring the best and largest China Fowls in this Country—Cochin China, Black, Brown, Buff or White Shanghaes. Also a few pair of Black Spanish. All these fowls are from the best importations. All orders promptly attended to. Address post-paid 56 Schuyler street, Albany, N. Y.

October 1—mtt*. GEORGE ANDERSON.

A Desirable Country Residence.

MY old Homestead farm (118 acres) is for sale. For particulars, see Country Gentlemen No. 7, 8, 9, 10, or the Cultivator for March. Payments accomodating.

DAVID THOMAS.

Greatfield, near Aurora, Cayuga co., N. Y. Sept. 15.

ANDRE LEROY,

Nurseryman, - - - - - Angers, France,

HONORARY AND CORRESPONDING MEMBER, &c., of all the principal Agricultural Societies of Europe and America, begs to inform his friends, and the public in general, that he has just published his Catalogue for 1853, which is the most complete one ever made. All the prices and required information for the importation of all kinds of Trees, Shrubs, Evergreens, Stocks, Roses, &c., will be found in said Catalogue, which can be had free of charge, on application to the undersigned, who will receive and forward all orders, and attend to receiving and forwarding of the trees ordered, on arrival here. It is useless to add that Mr. LEROY possesses the largest NURSERY on the Continent. His experience in putting up orders for America, and the superior and reliable quality of all his trees, &c., is too well established to require any further notice. Orders should in all cases be sent to the undersigned in the fall, with information when the trees are to arrive here, and how they are to be forwarded.

E BOSSANGE,

Sept. 29—m3t. 138 Pearl-st., New-York.

A Small Farm For Sale,

THREE miles south-west of the village of Macedon, in Wayne co., N. Y., consisting of about 56 acres of excellent land, three-fourths good wheat soil, and the remainder fertile pasture or meadow, with about five acres of woodland. It has a two story dwelling, the upper part unfinished, a barn, granary and corn house, and a never-failing spring of water. The price if sold soon, is fifty dollars per acre. A portion, or the whole, may be paid when possession is given, the first of April next. For further particulars, apply to the subscriber personally, at his residence in Macedon.

Macedon, Sept. 15, 1853. J. J. THOMAS.

Osier or Basket Willow.

THE subscriber will have for sale, to be delivered this fall or next spring, about 50.000 Willow Sprouts of the growth of this season, suitable for propagation or for baskets. Each sprout will make from four to five cuttings for planting.

C. N. BEMENT, 341 Broadway, Albany.

Aug 11—w1am1m.

Country Residence.

FOR sale, a most desirable Country Residence, containing about twelve acres of land—a sandy loam—in a high state of cultivation, within three quarters of a mile of the principal business street in the city of Scenectady. On the premises is a large house 24 feet front by 70 in depth, replete with every necessary convenience; attached to the same, are all the necessary barns, out-houses, &c. The garden contains a large number of choice fruit trees, consisting of Apple, Cherry, Pear, &c; also a number of evergreen and deciduous Ornamental Trees, together with a large quantity of Grape vines, Roses, new and rare Shrubbery. The fences are mostly new, and the house is in good repair, and has recently been fitted up as a residence for the proprietor, but other engagements render it necessary to dispose of the same. Price $2.500—less than the actual cost of the improvements. Possession given immediately; title perfect. Inquire of

C. REAGLES,

Union Gardens and Nurseries, Schenectady.

September '—m2t.

Albany Tile Works,

Corner Patroon and Knox Streets, Albany, N. Y.

DRAIN TILE of the following descriptions and prices, suitable for land drainage, always on hand, in large or small quantities, of the first quality, delivered at the Docks and Railroad Depots free of cartage.

Horse Shoe Tile.

4½ inch calibre, $18 per 1000 feet.
3½ " " $15 "
2½ " " $12 "

Sole Tile or Pipe.

3 inches calibre, $18 per 1000 feet.
2 " " $12 "

Horse Shoe Hand Tile, 8 inches calibre, for drains around dwellings, at $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains, at $4 per 100 feet—9 and 6 inch square, polished face Floor Tile, less than one-fourth the cost of marble, for basement floors and cellar pavements—9 and 6 inch square Bakers' Tile, for oven bottoms. Orders from a distance will receive prompt attention.

A. S. BABCOCK.

Albany, April 14, 1853—16—13t—c6m.

Albany Drain Tile Works,

No. 60 Lancaster Street, Albany, West of Medical College.

THE subscriber, successor to JOHN GOTT, formerly A. S BABCOCK & CO., is prepared to furnish DRAINING TILE of both Horse Shoe and Sole patterns, at from $12 to $18 per 1000 pieces. The tile are more than a foot in length, and fully equal to any of American or Foreign manufacture. They are so formed as to admit water at every joint, and drain the land perfectly from 12 to 20 feet on each side, according to the nature of the soil.

Also, LARGE TILE for drains about dwellings, yards, &c., at from $4 to $8 per 100 pieces. Tile delivered at the docks and railroads free of cartage. Practical drainers, for laying Tile, furnished if desired.

more durable than brick drains.

Full directions for preparing ditches, laying tile, &c., will be sent free to those addressing the subscriber, post-paid, The tiles can be sent safely any distance. Orders are respectfully solicited.

DAVID CALLANAN.

Sept. 15—w& mtf. Albany, N. Y.

Orchard Grass.

3000 BUSHELS Orchard Grass, handsomely cleaned, and for sale at the Western Agricultural Warehouse of

MILLER & SHREVE,

August 25, 1853—w3m Louisville, Ky.

FRUIT TREES,
Ornamental Shrubs, Flowering Plants, &c.

J. J. THOMAS has for sale at his Nursery, Macedon, N. Y., a fine and select collection of Fruit Trees, propagated from the BEST PROVED SORTS, consisting of:—

Apple Trees,			at 20 cts.	each,	$15	per 100.
Peach,	do	large,	20	do	15	do
do	do	1 year from bud,	15	do	12	do
Cherry,	do	with fine heads,	31	do	25	do
Pear,	do	standards,	50	do		
do	do	dwarfs,	37	do		
Plum,	do		37	do		

Besides the smaller fruits, as Strawberries, Grapes, &c.

For those who desire it, careful selections will be made by the proprietor, of the different sorts, so as to afford a regular succession of the finest varieties, through summer, autumn, and winter, without additional charge.

Also, for sale, a large collection of hardy ORNAMENTAL TREES and SHRUBS, HERBACEOUS PERENNIAL FLOWERING PLANTS, &c., among which are a hundred selected sorts of Roses, the finest Spiræas, Pæonias, Phloxes, Tulips, &c.

Orders directed "J. J. THOMAS, Macedon, Wayne Co., N. Y.," and accompanied with remittances, will be carefully filled, and the trees or plants packed in the best manner for safe conveyance by railway.

9 mo. 8—36—8t—m2t.

Syracuse Nurseries—Syracuse, N. Y.

THORP, SMITH, HANCHETT & CO., particularly invite the attention of Nurserymen, Venders, and Planters, to their immense stock of trees of every description, being of unusually fine growth.

Standard Fruits of Apples, Pears, Cherries, Plums, Peaches, &c, for orchard planting, vigorous, stocky, and well formed.

Dwarf and Pyramidal Pear Trees, on the best *Angers* or *French Quince Stocks* (embracing every good variety that will work well,) 2 years old, very beautiful, vigorous, and well formed.

Dwarf Cherries on Mahaleb Stocks, 1, 2, and 3 years old trees, finely formed and handsome.

Gooseberries, Currants, Raspberries, &c.—Our stock consists of the choicest varieties, including the new celebrated sorts.

Grape Vines, of all the hardy sorts, with some 40 foreign varieties, grown in pots from single eyes.

We would particularly request persons who are desirous of purchasing, to examine the above trees, as they are not only worked on the best stocks that can be procured, and grown in good soil—but they are stout, stocky, and vigorous, maturing their wood early in the fall; and as we pay the most strict attention to our trees, during every stage of their growth, we feel that no stronger guarantee of accuracy can be given in this respect.

Ornamental Trees—Such as Horse Chestnuts, Sugar and Silver Maples, Elms, Black Walnuts, Silver Abeles, Tulip trees, &c., we have very large and fine for street planting.

Shrubbery.—A splendid collection, containing everything new and rare.

Roses.—One of the largest collections in the country, including all the novelties. Also the celebrated "Augusta" Rose, which has given such universal satisfaction the present summer.

Bulbous Roots.—We are now receiving from Holland by steamer, a splendid importation of Bulbous Roots, comprising all the choicest varieties.

Green-house Plants, Fuchsias, Pompone Chrysanthemums, Verbenas, Dahlias, Strawberry and Hedge Plants, &c.

All orders strictly complied with in every respect, and articles packed in the best manner for transportation to any part of the United States. For further particulars see Catalogues.

No. 1. A general Descriptive Catalogue, combining Nos. 2, 3, and 4, in one volume.

No. 2 A general Descriptive Catalogue of Fruit Trees.

No. 3 A new Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, Flowering Plants, &c.

No. 4. A Descriptive Catalogue of Dahlias, Verbenas, Chrysanthemums, Geraniums, Fuchsias, Bedding out and Green-house Plants. Also a wholesale Catalogue or Nursery trade list. The above Catalogues will be sent gratis to all applicantions, (post-paid,) enclosing for the wholesale list one penny stamp—for No 1 a letter stamp—and Nos. 2, 3, and 4, two penny stamps each.

THORP, SMITH, HANCHETT & CO.

Sept. 1—m2t.—w37, 38, 39.

Suffolk Pigs.

SIX pairs of purely bred Suffolk Pigs, also breeding sows, for sale by C. J. HOLDEN,

Sept. 15—2t* Walpole, N. H.

Pear Seedlings.

FOR SALE, 50,000 Pear Stocks, one year old, raised here from Northern seed—very strong, suitable for nursery planting the ensuing spring.

Also, a general and very complete assortment of hardy FRUIT AND ORNAMENTAL TREES, SHRUBS AND PLANTS.

Particular attention paid to the cultivation of the PEAR—to which the soil here is admirably adapted—and of which fine healthy trees can be supplied, of nearly every choice variety in cultivation.

Catalogues sent gratis, on receipt of a stamp for pre-payment of the postage. Freight paid to the Lake.

J. BATTEY, Union Nurseries,

Sept. 15, 1853—w3t—m1t. Keeseville, N. Y.

American Botanic Garden and Nurseries.

5000 *Standard Pear Trees*, 3, years old, 5 to 7 feet high, mostly Virgalieu and Bartletts.

5,000 do. 2 years old, 3 to 5 feet high, including many other leading varieties. These trees are all healthy and vigorous.

5,000 *Peach*, one year from bud, strong and fine.

20,000 *Balsam Firs*, 3 years, cultivated, very fine.

10,000 *American Arborvitæ*, 2 years, cultivated.

The above, and many other articles, are offered at *wholesale, at very low prices.*

Also a general assortment of FRUIT AND ORNAMENTAL TREES, Shrubs, Roses, Pæonies, Phloxes, Spireas, Tulips, Hyacinths, &c., &c., *at retail.*

Particular attention is given to the cultivation of HARDY EVERGREENS, for Door-yards and for Hedges.

Catalogues furnished *gratis.*

Orders solicited. Address DELL & COLLINS,

Sept. 8—36—3t.—m1t. Waterloo, Seneca Co., N. Y.

Genesee Valley Nurseries.

A. FROST & CO., Rochester, N. Y., solicit the attention of Amateurs, Orchardists, Nurserymen, and others about to plant, to their stock of Fruit Trees, which is the largest, and much the finest that they have ever offered, consisting, in part, of the following:

Standard Fruit Trees—of Apple, 60 varieties, Pear, 75 var., Cherry, 50 var., Plum, 25 var., Peaches, 30 var., Nectarines, 6 var., Apricot, 6 var., comprising every sort of merit.

Fruit Trees on the best stocks of Apple, Pear and Cherry, and of the above large collection of sorts.

Small Fruits—Currants, 15 varieties, Gooseberries, 100 var., Grapes, native and Foreign, 25 var., Raspberries, 5 var., Strawberries, 20 var., &c.

Deciduous and Evergreen Trees for Lawns, Parks, Streets,

Evergreen and Deciduous Shrubs in great variety, including 400 sorts of the Rose.

Bulbs in varieties, Crocus, Crown Imperials, Gladiolus, Hyacinths, Lilies, including the Lancifolium of sorts, Tulips, &c.

Chrysanthemums, the finest new Pompone, or Daisy var.

Dahlias, the best and highest prize varieties shown in England, during 1851-2, including all the best varieties of old sorts.

Green House and Bedding Plants, &c., &c., of every description.

Plants for Hedges, Buckthorn, Osage Orange, Privet, American Arbor Vitæ. (White Cedar.) Norway Spruce, &c., all of which will be supplied at the lowest rates.

All articles are put up in the most superior manner, so that the plants, &c., may go thousands of miles, and reach their destination in perfect safety.

Parties giving their orders, may depend that perfect satisfaction will be given them.

The following Catalogues, containing the prices, are published for gratuitous distribution, but as we are obliged to pre-pay the postage if they are mailed, correspondents will please enclose a one cent postage stamp for each catalogue wanted.

No. 1. A descriptive Catalogue of Fruits, Ornamental Trees, Shrubs, Roses, &c.

No. 2. A descriptive Catalogue of Dahlias, Verbenas, and other bedding plants, &c., &c., including many new articles which may be introduced up to the time of its publication, and issued every spring.

No. 3. A wholesale Catalogue, a trade list just published for the fall of 1853, and spring of 1854, comprising Fruits, Ornamental Trees, such as Evergreens, &c., which are offered in large quantities.

Rochester, Sept. 22, 1853—w3t.

Seed, Wheat and Rye.

MULTICOLE RYE, Soules, Blue Stem, Australian, New Mediterranean, Genesee, White and Flint Wheat.

For sale by LONGETT & GRIFFING,

Sept. 15—w3t—m1t. No. 25 Cliff Street, New York.

Geo. H. Cherry & Co.,

River-Bank Nurseries, Rochester, New-York,

OFFER for sale a large assortment of FRUIT TREES of all kinds. The Trees are well grown, healthy and vigorous, and none other will ever be sent out. In addition to the above we offer, by request, a part of our young stock for transplanting, comprising—

100.000 Apples, 1 year from graft.
35,000 do 2 years from graft.
15,000 Cherries, 1 year from bud.
5.000 do 2 years from bud.
with Dwarf Pears, Peaches Plums, Appricots, &c.

Nurserymen desiring such stock, will find the above well worth their notice.

Orders for Trees are solicited, under a strong persuasion that we shall be able to give satisfaction. No pains will be spared to secure the confidence of the public.

GEO. H. CHERRY & Co.,

River Bank Nursery, North of St. Paul-street; Office 106 State-street, Rochester, N. Y. Aug. 18—w1tm2t.

Highland Nurseries, Newburgh, N. Y.

A. SAUL & CO., in calling the attention of their patrons and the public in general, to their very extensive stock of FRUIT AND ORNAMENTAL TREES, SHRUBS, &c., &c., which they offer for sale the coming autumn, would remark, that owing to the past summer being one of the most favorable for the growth of trees, which they have had for many years in this locality, their stock of *trees and plants, in every department*, is larger, more thrifty, and in every respect finer than usual.

To particularize within the limits of an advertisement would be impossible, they thefore refer *planters* and *dealers* of trees to their catalongue, a copy of which will be sent by mail to all *post paid* applicants for the same, on enclosing a post-office stamp.

They invite especial attention to their assortment of *Standard and Dwarf Pear and Cherry trees*, which are unusually fine, as well as Plum, Peach, Apricot and Nectarine; also Grape Vines, Gooseberries, Currants, Raspberries, Strawberries, &c., &c., in any known variety.

500.000 very strong two year old *Osage Orange* plants, in *three sizes*, at $10, $8, and $6 per thousand.

Buckthorn plants, $8 per thousand.

Newburgh, N. Y., Sept., 1 1853—m2t

Devon Cow for Sale.

FOR sale a thorough bred Devonshire Cow, at the low price of $65, half her actual value. All applications should be directed to C. REAGLES, Union Gardens and Nurseries, Schenectady, N. Y.

For sale cheap, 40 pure bred Shanghae fowls from 2 months to 1 year old, comprising White, Buff, Black, and Dominique colors—also 6 fine Black Spanish chickens.

September 1—m2t.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass.

Suffolk Pigs.

THE subscribers are prepared to receive orders for pure Suffolk Pigs, bred from stock imported in 1848 by the late William Stickney, also by the subscribers in Jan. last. Address, JOSIAH STICKNEY, Boston or Watertown, or
ISAAC STICKNEY, Boston, Mass.

September 1—m6t.

Suffolk Swine.

PIGS, Breeding Sows and Boars, of the purest blood and finest specimens. To be seen, one of the finest boars in the world. GEO. W. WILSON,

July 28—w1—m2t* Malden, Mass., 4 miles from Boston.

Suffolk.

SUFFOLK and Essex Pigs,

Improved Essex.

PURE BRED, for sale by B. F. KEYES,
July 22—m3t Dedham, Mass.

Durham Bull For Sale.

THE subscriber offers for sale a Full Blood Durham Bull, Lord Eryholme 2d, two years old the 5th of September. He is a splendid animal, got by Lord Eryholme, imported by Lewis G. Morris, Esq., of Westchester, and out of a superior imported cow. Registered, Vol. 10, Coates' Herd Book.

J. D. THORP,
Sept. 1—m2t Castleton, Rensselaer co., N. Y.

Spanish Merino Bucks.

THE subscriber offers for sale several Spanish Merino Buck Lambs. These sheep are supposed to be excelled by none in the state, and are pronounced by judges from different sections of the country to be superior stock. They are justly celebrated for weight and fineness of fleece, and perfect hardiness of constitution. Prices from $10 to $15 per head. LEVI S. WELLS,

Aug. 11—w4t—m2t. New Britain, Hartford Co., Ct.

Super-Phosphate of Lime—C. Deburgh's No. 1.

WE are the only authorized agents for the sale of Deburgh's Super-Phosphate of Lime in the city of New York. As there has been various spurious substances sold last spring for this superior manure, we request farmers and dealers to send their orders direct to our warehouse. We have sold about 300 tons this spring, and have received information from many that it was equal to guano in its immediate effect, and much more lasting in the land.

Any person who purchased from us Deburgh's Super-Phosphate last spring, which has not given satisfaction, by sending us notice, we will forward another lot for trial without charge. LONGETT & GRIFFING,

State Agricultural Wareheuse, No. 25 Cliff st.

New-York, Aug. 11—w8t—m1t.

Manures.

PERUVIAN GUANO, Imp. Super-phosphate of Lime, Bone Dust, Bone Black, Sulphuric Acid, Potash, Poudrette, Plaster of Paris, Charcoal, &c., &c., for sale by
GEO. H. BARR & CO.,
Sept. 1—m2t. 53 Cortlandt St., New-York.

Farmers, Attention!

THIS is the proper season to use LEINAU'S AMERICAN FERTILIZER upon your farms. This truly valuable manure can be had at $25 per ton, or $3 50 per barrel, of the proprietor. Try it. It is now on exhibition at the Crystal Palace, New-York, and any amount of names can be given of its successful use. Also, Guano and Poudrette, Phosphate of Lime and Aqua Ammonia.

G. A. LEINAU,
Aug. 18—m3t. No. 19 South Front-st., Philadelphia.

Super-phosphate.

NO expense has been spared in the combination of this most fertilizing manure, which contains the natural properties of plants. It is superior to most of the articles offered for sale under the same name, and is inferior to none, although sold at a much lower price. It is put up in bags, at $40 per ton, of 2000 lbs, cash.

Office of the New-York Super-phosphate Manufacturing Company, No. 159 West-street, New-York.

Aug 18—w1t—m3t VICTOR R. KNOWLES, Agent.

Super-phosphate of Lime.

IN bags and barrels, made by C. B. DeBurgh, a warranted pure and genuine article, for sale by
GEO. DAVENPORT,
No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

April 7—14—1t—mtf.

Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.
BONE DUST, when taken in equal quantities, $2 25 per barrel.
BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1 25 per barrel.
POTASH, 3½ to 4 cents per pound.
CHARCOAL, $1 per barrel.
SULPHURIC ACID, 2½ to 2½ cents per pound.
SUPERPHOSPHATE OF LIME, 2½ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.

For sale at the State Agricultural Warehouse, No. 25 Cliff-street, New-York. LONGETT & GRIFFING.

Feb. 1—ctf.

Horse Powers, Threshers, &c.

RAILWAY Powers of Wheeler's and other manufacture, for one and two horses.
THRESHERS—With and without Separators.
FANNING MILLS, CORN SHELLERS, and STRAW CUTTERS of the most approved kinds, for sale by
GEO. H. BARR & CO.,
Sept. 1—m2t. 53 Cortlandt St., New-York.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.
CORN MILLS—both of Iron and Burr Stone.
CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.
ROAD SCRAPERS—of several patterns.
FANNING MILLS—of all the best makers.
SAUSAGE STUFFERS AND CUTTERS—of all patterns.
VEGETABLE OR ROOT CUTTERS—of approved kinds.
CORN SHELLERS—for hand and horse power.
VEGETABLE BOILERS—of Mott's and Bent's patterns.
GARDEN AND WHEEL BARROWS—of iron and wood.
HAY AND COTTON PRESSES—Bullock's patent
BRICK MACHINES—of Hall's and other makers.
WAGONS AND CARTS.
PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.
For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

North River Agricultural Warehouse.

No. 53 Courtland Street, New York.

GEORGE H. BARR & CO., invite the attention of Farmers, Planters and others, to their large and varied assortment of Agricultural Implements, Manures, Seeds, &c., &c., all of which will be furnished at the lowest prices. Their assortment includes
PLOWS—All the improved kinds by the most approved makers.
HORSE POWERS—Of all kinds and sizes, with and without Thrashers, &c.
CORN SHELLERS—All the approved kinds, and some of recent introduction.
STRAW CUTTERS—Of all sizes and kinds, for hand and horse-power.
CORN AND COB CRUSHERS—Of all kinds and sizes.
FANNING MILLS, Cultivators, Harrows, Agricultural Barometers, Churns, of all the approved kinds, Rakes, Hoes, Forks, and a general assortment of Horticultural and Garden tools. Sept. 1—m2t.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.
We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.
We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, farm or garden. JOHN MAYHER & CO.
N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers Jan 1, 1853—m&wtf

Horse Powers,

ON the Endless Chain Principle, from the best manufacturers—Emery's, Wheeler's, and White & Prentiss.
THRASHERS AND SEPARATORS.—Thrashers, Separators, and Winnowers combined.
The above are warranted to give satisfaction. For sale at the lowest cash prices, at the State Agricultural Warehouse.
LONGETT & GRIFFING.
Aug. 18—w8t—m2t 25 Cliff-street, New-York.

Improved Portable Cider Mill and Press.

HICKOK'S Improved Portable Cider Mill and Press, received following premiums in 1852, viz:—A Silver Medal at the Fair of the American Institute, New-York Diploma at the Franklin Institute, Philadelphia. First premiums at the State Fair at Utica, and at the Columbia and Rensselaer county Fairs, and a diploma at the Westchester County Fair.
Descriptive circulars sent free to all post-paid applications. See page 23 of this paper, for engraving, &c. Price $10.
Manufactured by W. O. HICKOK,
Harrisburg, Pa.
Sold by LONGETT & GRIFFING, 25 Cliff-st, N. Y.
EMERY & CO., Albany.
DANA BROTHERS, Utica.
PROUTY & CHEW, Geneva
HIGGINS & CALKINS, Castile, Wyoming County.
C. E. YOUNG, Main-st., Buffalo.
O. GREGORY, Binghamton.
CHARLES ASHLEY, Ogdensburg.
D. LANDRETH, Philadelphia.
July 14—w3m—m3t.

Railway Horse Powers,

FOR one or two horses—Threshers, Separators and Cleaners—Combined Threshers and Separators, all of the most approved plans, for sale at the STATE AGRICULTURAL WARE HOUSE, No. 25 Cliff-st., New-York.
July 28—w2m—m3t.

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $100. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.
S. A. CLEMENS.
Springfield, Mass., March 9, 1853.—mtf.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.
ROW'D T. ROBINSON,
Aug. 1—tf Ferrisburgh, Addison co., Vt.

A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 50 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon ANSEL WHEDON, Agent, near Lee station. For further information, address
A. & O. WHEDON.
March 18—w2—mtf. West Pawlet, Vt.

Agricultural Books

THE Transactions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "THE CULTIVATOR," price $1 per vol.

Contents of this Number.

Agricultural Machinery,	297
Growth of Timber—How to Have Plenty of Water,	298
Tanks for Liquid Manure,	299
Green Manuring—Underdraining,	300
Removing Suckers from Corn—Red Clover Sown in the Fall, by S. B. Buckley—Important Discovery, by D. Tomlinson,	301
Beebe's Patent Grain Drill and Corn Planter—Experiments with Charcoal,	302
Time to Sow Plaster, by W.—To Prevent Injury from Ground Mice, by Henry White,	303
Visit to Mount Fordham,	304
Letters on British Agriculture, by J. A. Nash,	305
Spurious and Genuine Science,	307
Vermont State Fair,	308
Don't Pull of the Suckers! by W. H. Scram,	309
Answers to Inquiries,	310
Preserving Fresh Fruits—The Preservation of Eggs for Winter Use, by C. E. Goodrich,	311
Frauds of Nurserymen—Notes on Fruits,	312
American Agave—The Japanese Wind Flower—New Early Plum,	313
Striking Cuttings in the Spring, by Edgar Sanders—Transplanting Garden Plants, by W. R. Prince,	314
General Hand Plum—Garden Fertilizers—Loss of the Plum Crop,	315
Schenck's August Pear—Seedling Plums—New Cherries — Transplanting Strawberries — Preventing Gooseberry Mildew—Girdling Fruit Trees—Markets, and Cost of Fruit,	316
"Ayrshires as Milkers," by H. G. Foote—Shorthorns as Milkers, by P.—Good Mich Cows,	317
Great Sale of Imported Cattle—Recent Importation of Stock,	318
Jersey or Alderney Cattle,	319
The New-York State Fair,	320
Notes for the Month,	322
Super-phosphate of Lime,	323

ILLUSTRATIONS.

Tanks for Manure,	299	Japanese Wind Flower,	313
Patent Grain Drill,	302	Forcing House,	314
Mount Fordham,	304	General Hand Plum,	315
Cast Iron Pig Troughs,	305	Old Jersey Cow,	319
American Agave,	313	Improved Jersey Cow,	319

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